DETAILED ESTIMATE

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For the Work of

"Improvements to Road and Drains at HMT Layout, BEL layout and Surrounding area in ward No.09 (Vidyaranyapura)"

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:-CONSULTANCY SERVICE FOR DETAILED PROJECT REPORT, FIELD SURVEY, GENERAL REPORT, BASIC DRAWING, TECHNICAL REPORT, DETAILED DRAWING, DETAILED COST ESTIMATE FOR PACKAGE NO. 06 (PACKAGE CONSISTS OF 14 WORKS)

1)Improvements to Road and Drains at HMT Layout, BEL layout and Surrounding area in ward No.09 (Vidyaranyapura)

									Estimation Cost.Rs	10000000.00
Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount	
			No.	L	B	D				
1	**Removing and refixing stone slabs of drains and pointing in CM (1:3) (Data Rate)**									
	BS slab of Drain	**Sqm**								
	Open Drain (Sides & Bottom)	**Sqm**	Width=Perimeter of Drain in U Shape							
	BEL 1st Block									
	1st Main Road									
	LHS	Sqm	1	424.20	1.35		572.67			
					Total		**572.67**			
	Deduct 30% for Missing/Damaged						171.80			
	Consider 70% Qnty for Removing & Refixing						400.87			
					Sub Total		**400.87**			
	Data rate	**121.00**								
	Total						**400.87**	**121.00**	**48506.00**	
2	Earth work excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work. (PWD SR 2021-22 Vol -I Pg No 5 item no 1.4.1)									
	New Drain	**Cum**								
	BEL 1st Block									
	1st Main Road									
	RHS	Cum	1	424.20	1.10	1.05	489.95			
	HMT 1st Block									
	13th Main Road	Cum								
	LHS		1	210.00	1.10	1.05	242.55			
	For Culvert									
	BEL 1st Block	Cum	2	6.00	1.40	1.10	18.48			
	HMT 1st Block	Cum	2	8.00	1.40	1.10	24.64			
	Desilt									
	BEL 1st Block									
	1st Main Road									
	LHS	Cum	1	424.20	0.45	0.45	85.90			
	Basic rate	186.00								
	Area weightage 10%	18.60								
	Sub Total	**204.60**								
	Total						**861.52**	**204.60**	**176268.00**	
3	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete.(P.No.27,I.No.5.31.1)									
		Sqm								
	Provide 30% for Missing/Damaged	From item no.01					171.80			
	Basic rate	700.00								
	Area weightage 6%	42.00								
	Sub Total	**742.00**								
	Total						**171.80**	**742.00**	**127477.00**	

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
4	Providing and laying in position plain cement concrete Mix 1:3:6 (M10) for levelling course for all works in foundation. Using 40 mm nominal size graded crushed coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (PWD SR 2021-22 Vol -I Pg 15 item no 2.1.3)								
	For Drain	**Cum**							
	BEL 1st Block								
	1st Main Road								
	RHS	Cum	1	424.20	1.10	0.15	69.99		
	HMT 1st Block								
	13th Main Road	Cum							
	LHS		1	210.00	1.10	0.15	34.65		
	For Culvert								
	BEL 1st Block	Cum	2	6.00	1.40	0.15	2.52		
	HMT 1st Block	Cum	2	8.00	1.40	0.15	3.36		
	Basic rate	5752.00							
	Area weightage 10%	575.20							
	Sub Total	**6327.20**							
	Total						**110.52**	**6327.20**	**699302.00**
5	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. M20 (The cost of steel reinforcement & formwork to be paid separately) (PWD SR 2021-22 Vol -I Pg 17 item no 2.4.2)								
	Bottom Raft	Cum							
	BEL 1st Block								
	1st Main Road								
	RHS	Cum	1	424.20	0.90	0.15	57.27		
	HMT 1st Block								
	13th Main Road	Cum							
	LHS		1	210.00	0.90	0.15	28.35		
	Side Wall								
	BEL 1st Block								
	1st Main Road								
	RHS	Cum	2	424.20	0.15	0.75	95.45		
	HMT 1st Block								
	13th Main Road	Cum							
	LHS		2	210.00	0.15	0.75	47.25		
					Sub Total		**228.31**		
	Culvert								
	Bottom Raft								
	BEL 1st Block	Cum	2	6.00	1.20	0.20	2.88		
	HMT 1st Block	Cum	2	8.00	1.20	0.20	3.84		
	Side Wall								
	BEL 1st Block	Cum	4	6.00	0.23	0.75	4.14		
	HMT 1st Block	Cum	4	8.00	0.23	0.75	5.52		
					Sub Total		**16.38**		
	Basic rate	6256.00							
	Add 5% for Shuttering	312.80							
		6568.80							
	Area weightage 10%	656.88							
	Sub Total	**7225.68**							
	Total						**244.69**	**7225.68**	**1768067.00**

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
6	Supplying, Fitting and Placing TMT Fe550 bar Reinforcement in sub-structure complete as per Drawing and Technical Specifications. MORTH Specification NO.1600&2200 (PWD SR 2021-22 Vol -III Pg 99 item no 13.1)								
	For Drain	Cum					228.31		
		kg	Steel assumed 60Kg/Cum of Concrete				13698.72		
		tonne					**13.70**		
	For Culvert	Cum					16.38		
		kg	Steel assumed 90Kg/Cum of Concrete				1474.20		
		tonne					**1.47**		
	Basic rate	103329.00							
	Area weightage 10%	10332.90							
	Sub Total	**113661.90**							
	Total						**15.17**	**113661.90**	**1724583.00**
7	Providing and Fixing pre cast covering Slab 100mm thick made out of CC , Jelly 20mm Down Size with steel reinforcement including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete as per Engineer incharge. (Data Rate)								
	BEL 1st Block								
	1st Main Road								
	RHS	Sqm	1	424.20	0.90		381.78		
	HMT 1st Block								
	13th Main Road	Sqm							
	LHS		1	210.00	0.90		189.00		
	Data rate	**2072.00**							
	Total						**570.78**	**2072.00**	**1182657.00**
8	Providing and Fixing pre cast covering Slab 230mm thick made out of CC , Jelly 20mm Down Size with steel reinforcement including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete as per Engineer incharge. (Data Rate)								
	Culvert cover Slab	Sqm							
	BEL 1st Block	Sqm	2	6.00	1.20		14.40		
	HMT 1st Block	Sqm	2	8.00	1.20		19.20		
	Data rate	**5037.00**							
	Total						**33.60**	**5037.00**	**169244.00**
9	Earth work in surface excavation by mechanical means for lowering & leveling the ground for all works other than foundation in all kinds of soils & upto depth not exceeding 300mm as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter including dressing of excavated surfaces, disposing off or levelling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools, usage of machinery & other appurtenances required to complete the work. In all kinds of soils upto 300 mm depth. (PWD SR 21-22 Vol I Pg no 8 Item No 1.12)								
	Road Cut Portion	**Cum**							
	BEL 1st Block								
	1st Main Road	Cum	2	424.20	1.00	0.23	195.13		
	Basic rate	65.00							
	Area weightage 10%	6.50							
	Sub Total	**71.50**							
	Total						**195.13**	**71.50**	**13952.00**

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
10	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density MORTH Specification No. 406 (PWD SR 21-22 Vol III Pg no 24 Item No 4.27 (A)								
	Road Cut Portion	**Cum**							
	BEL 1st Block								
	1st Main Road	Cum	2	424.20	1.00	0.23	195.13		
	Basic rate	2394.00							
	Area weightage 10%	239.40							
	Sub Total	**2633.40**							
	Total						**195.13**	**2633.40**	**513861.00**
11	Providing and applying primer coat with SS1 grade Bitumen Emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.90 kg per m2 using mechanical means MORTH Specification No. 502 (PWD SR 21-22 Vol III Pg no 29 Item No 5.1 A (i))								
	BEL 1st Block								
	1st Main Road	Sqm	2	424.20	1.00		848.40		
	Provide 20% Profile Correction for old Road								
	BEL 1st Block								
	1st Main Road	Sqm	0.2	424.20	5.50		466.62		
	Basic rate	44.00							
	Area weightage 10%	4.40							
	Sub Total	**48.40**							
	Total						**1315.02**	**48.40**	**63647.00**
12	Providing and laying Dense Graded Bituminous Macadam with 40/60 TPH capacity HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 505 complete in all respects (PWD SR 21-22 Vol III Pg no 33 Item No 5.12 (C))								
	Road Cut Portion								
	BEL 1st Block								
	1st Main Road	Cum	2	424.20	1.00	0.05	42.42		
	Provide 20% Profile Correction for old Road								
	BEL 1st Block								
	1st Main Road	Cum	0.2	424.20	5.50	0.05	23.33		
	Basic rate	9889.00							
	Area weightage 10%	988.90							
	Sub Total	**10877.90**							
	Total						**65.75**	**10877.90**	**715233.00**
13	Providing and applying tack coat with RS1 Bituminous Emulsion using emulsion pressure distributor at the rate of 0.25 kg/m2 on the prepared bituminous surface cleaned with mechanical broom MORTH Specification No. 503 (PWD SR 21-22 Vol III Pg no 29 Item No 5.4 (ii))								
	BEL 1st Block								
	1st Main Road	Sqm	1	424.20	5.50		2333.10		
	Basic rate	15.00							
	Area weightage 10%	1.50							
	Sub Total	**16.50**							
	Total						**2333.10**	**16.50**	**38497.00**

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
14	Providing and laying Bituminous Concrete with 40/60 TPH capacity hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 5.4 percent of mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade,level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects (PWD SR 21-22 Vol III Pg no 36 Item No 5.16C)								
	BEL 1st Block	**Cum**							
	1st Main Road	Cum	1	424.20	5.50	0.04	93.32		
	Basic rate	11531.00							
	Area weightage 10%	1153.10							
	Sub Total	**12684.10**							
	Total						**93.32**	**12684.10**	**1183731.00**
15	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 g/ m2 area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35:2015.The finished surface to be level, uniform and free from streaks and holes. MORTH Specification No. 803 (PWD SR 21-22 Vol III Pg no 57 Item No 8.15)								
	BEL 1st Block	**Sqm**							
	1st Main Road	Sqm	2	424.20	0.10		84.84		
	Basic rate	478.00							
	Area weightage 10%	47.80							
	Sub Total	**525.80**							
	Total						**84.84**	**525.80**	**44609.00**
16	**Loading and Unloading of Stone Boulder**/Stone aggregates/ Sand/Kankar/Moorum. (Tipper 5.5 m3) (PWD SR 2021-22 Vol-III Page No.3, Item No.1.1A)								
	Qty Vide frm Item No-02+09	**Cum**					**1056.65**		
	Total						**1056.65**	**129.80**	**137154.00**
	Basic rate	118.00							
	Area Weightage 10%	11.80							
	Total	**129.80**							
17	**Cost of Haulage** Excluding Loading and Unloading Taking output 10 t load and lead 10 km = 100 t.km (PWD SR 2021-22 Vol-III Page No.3, Item No.1.4A)								
	Qty frm Item No-16	**t.Km**		1056.65	1.28		**1352.52**		
	Total						**1352.52**	**105.60**	**142826.00**
	Basic rate	12.00							
	8Km 12*8	96.00							
	Area Weightage 10%	9.60							
	Total	**105.60**							
								Grand Total	**8749614.00**
								GST Charges (12% of estimated cost)	**1049954.00**
								DPR Charges (1% of estimated cost)	**100000.00**
								Project management And Consultancy Charges(1% of estimated cost)	**100000.00**

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
								Miscellenious and rounding	432.00
								Total Amount	**10000000.00**
									RUPEES ONE CRORE ONLY

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2018-2019, PWD 2021-2022, Issue rates and Data Rates.

Assistant Engineer
BBMP

Assistant Executive Engineer
BBMP

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Executive Engineer
BBMP

RUDRAPRASAD CONSULTANTS
BANGALORE

(2)

DETAILED ESTIMATE

For the Work of

"Improvements to Roads and Drains at Thindlu Virupakshapura and Surrounding area in Ward No.09 (Vidyaranyapura)"

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:-CONSULTANCY SERVICE FOR DETAILED PROJECT REPORT, FIELD SURVEY, GENERAL REPORT, BASIC DRAWING, TECHNICAL REPORT, DETAILED DRAWING, DETAILED COST ESTIMATE FOR PACKAGE NO. 06 (PACKAGE CONSISTS OF 14 WORKS)"

2) Improvements to Roads and Drains at Thindlu Virupakshapura and Surrounding area in Ward No.09 (Vidyaranyapura)

								Estimation Cost.Rs	10000000.00
Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
1	Earth work excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work. (PWD SR 2021-22 Vol -I Pg No 5 item no 1.4.1)								
	New Drain	**Cum**							
	Thindlu Surrounding								
	K Veeranna Layout								
	Main Road	Cum	2	120.00	1.10	1.05	277.20		
	Muniswamappa Layout								
	Cross Road 1								
	LHS	Cum	1	100.00	1.10	1.05	115.50		
	For Culvert								
	Thindlu Surrounding								
	K Veeranna Layout								
	Main Road	Cum	2	6.80	1.40	0.95	18.09		
	Virupakshapura	Cum	3	6.40	1.40	0.95	25.54		
	Basic rate	186.00							
	Area weightage 10%	18.60							
	Sub Total	**204.60**							
	Total						**436.32**	**204.60**	**89272.00**
2	Providing and laying in position plain cement concrete Mix 1:3:6 (M10) for levelling course for all works in foundation. Using 40 mm nominal size graded crushed coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (PWD SR 2021-22 Vol -I Pg 15 item no 2.1.3)								
	For Drain	**Cum**							
	Thindlu Surrounding								
	K Veeranna Layout								
	Main Road	Cum	2	120.00	1.10	0.15	39.60		
	Muniswamappa Layout								
	Cross Road 1								
	LHS	Cum	1	100.00	1.10	0.15	16.50		
	For Culvert								
	Thindlu Surrounding								
	K Veeranna Layout								
	Main Road	Cum	2	6.80	1.40	0.15	2.86		
	Virupakshapura	Cum	3	6.40	1.40	0.15	4.03		
	Basic rate	5752.00							
	Area weightage 10%	575.20							
	Sub Total	**6327.20**							
	Total						**62.99**	**6327.20**	**398538.00**

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
3	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. M20 (The cost of steel reinforcement & formwork to be paid separately) (PWD SR 2021-22 Vol -I Pg 17 item no 2.4.2)								
	Bottom Raft								
	Thindlu Surrounding								
	K Veeranna Layout								
	Main Road	Cum	2	120.00	0.90	0.15	32.40		
	Muniswamappa Layout								
	Cross Road 1								
	LHS	Cum	1	100.00	0.90	0.15	13.50		
	Side Wall								
	Thindlu Surrounding								
	K Veeranna Layout								
	Main Road	Cum	4	120.00	0.15	0.75	54.00		
	Muniswamappa Layout								
	Cross Road 1								
	LHS	Cum	2	100.00	0.15	0.75	22.50		
					Sub Total		**122.40**		
	Culvert								
	Bottom Raft	Cum							
	Thindlu Surrounding								
	K Veeranna Layout								
	Main Road	Cum	2	6.80	1.20	0.20	3.26		
	Virupakshapura	Cum	3	6.40	1.20	0.20	4.61		
	Side Wall								
	Thindlu Surrounding								
	K Veeranna Layout								
	Main Road	Cum	4	6.80	0.23	0.60	3.75		
	Virupakshapura	Cum	6	6.40	0.23	0.60	5.30		
					Sub Total		**16.92**		
	Basic rate	6256.00							
	Add 5% for Shuttering	312.80							
		6568.80							
	Area weightage 10%	656.88							
	Sub Total	**7225.68**							
	Total						**139.32**	**7225.68**	**1006717.00**
4	Supplying, Fitting and Placing TMT Fe550 bar Reinforcement in sub-structure complete as per Drawing and Technical Specifications. MORTH Specification NO.1600&2200 (PWD SR 2021-22 Vol -III Pg 99 item no 13.1)								
	For Drain	Cum					122.40		
		kg	Steel assumed 60Kg/Cum of Concrete				7344.00		
		tonne					**7.34**		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	For Culvert	Cum					16.92		
		kg	Steel assumed 90 Kg/Cum of Concrete				1523.23		
		tonne					**1.52**		
	Basic rate	103329.00							
	Area weightage 10%	10332.90							
	Sub Total	**113661.90**							
	Total						**8.87**	**113661.90**	**1007867.00**
5	Providing and Fixing pre cast covering Slab 100mm thick made out of CC , Jelly 20mm Down Size with steel reinforcement including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete as per Engineer incharge. (Data Rate)								
	Thindlu Surrounding								
	K Veeranna Layout								
	Main Road	Sqm	2	120.00	0.90		216.00		
	Muniswamappa Layout								
	Cross Road 1								
	LHS	Sqm	1	100.00	0.90		90.00		
	Data rate	**2072.00**							
	Total						**306.00**	**2072.00**	**634032.00**
6	Providing and Fixing pre cast covering Slab 230mm thick made out of CC , Jelly 20mm Down Size with steel reinforcement including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete as per Engineer incharge. (Data Rate)								
	Culvert cover Slab								
	Thindlu Surrounding								
	K Veeranna Layout								
	Main Road	Sqm	2	6.80	1.20		16.32		
	Virupakshapura	Sqm	3	6.40	1.20		23.04		
	Data rate	**5037.00**							
	Total						**39.36**	**5037.00**	**198257.00**
7	Earth work in surface excavation by mechanical means for lowering & leveling the ground for all works other than foundation in all kinds of soils & upto depth not exceeding 300mm as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter including dressing of excavated surfaces, disposing off or levelling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools, usage of machinery & other appurtenances required to complete the work. In all kinds of soils upto 300 mm depth. (PWD SR 21-22 Vol I Pg no 8 Item No 1.12)								
	New Road	**Cum**							
	For CC Road								
	Surrounding Anjaneya Temple	Cum	1	139.90	7.30	0.30	306.38		
	For Asphalt Road								
	Muniswamappa Layout								
	Cross Road 1	Cum	1	100.00	7.00	0.38	266.00		
	Basic rate	65.00							
	Area weightage 10%	6.50							
	Sub Total	**71.50**							
	Total						**572.38**	**71.50**	**40926.00**
8	Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material by Mechanical Means using Hydraulic excavator with in all lifts and lead MORTH Specification No. 305.4.3 PWD SR 21-22 Vol III Pg no 15 Item No 3.5)								
	For new Road	Sqm							
	Thindlu Surrounding								
	K Veeranna Layout								
	Main Road	Sqm	1	120.00	5.40		648.00		
	Basic rate	4.00							
	Area weightage 10%	0.40							

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	Sub Total	**4.40**							
	Total						**648.00**	**4.40**	**2852.00**
9	Construction of Granular Sub-Base of required grading as per design mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per clause 401 (For Grading -V Material) (PWD SR 21-22 Vol III Pg no 19 Item No 4.1 A (v))								
	For New Road	**Cum**							
	Muniswamappa Layout								
	Cross Road 1	Cum	1	100.00	7.00	0.15	105.00		
	New CC Road								
	Surrounding Anjaneya Temple	Cum	1	139.90	7.30	0.15	153.19		
	Basic rate	2347.00							
	Area weightage 10%	234.70							
	Sub Total	**2581.70**							
	Total						**258.19**	**2581.70**	**666571.00**
10	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density MORTH Specification No. 406 (PWD SR 21-22 Vol III Pg no 24 Item No 4.27 (A)								
	For New Road	**Cum**							
	Thindlu Surrounding								
	K Veeranna Layout								
	Main Road	Cum	1	120.00	5.40	0.23	149.04		
	Muniswamappa Layout								
	Cross Road 1	Cum	1	100.00	7.00	0.23	161.00		
	Basic rate	2394.00							
	Area weightage 10%	239.40							
	Sub Total	**2633.40**							
	Total						**310.04**	**2633.40**	**816460.00**
11	Providing and applying primer coat with SS1 grade Bitumen Emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.90 kg per m2 using mechanical means MORTH Specification No. 502 (PWD SR 21-22 Vol III Pg no 29 Item No 5.1 A (i))								
	New Road	Sqm							
	Thindlu Surrounding								
	K Veeranna Layout								
	Main Road	Sqm	1	120.00	5.40		648.00		
	Muniswamappa Layout								
	Cross Road 1	Sqm	1	100.00	7.00		700.00		
	Basic rate	44.00							
	Area weightage 10%	4.40							
	Sub Total	**48.40**							
	Total						**1348.00**	**48.40**	**65244.00**
12	Providing and laying Dense Graded Bituminous Macadam with 40/60 TPH capacity HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 505 complete in all respects (PWD SR 21-22 Vol III Pg no 33 Item No 5.12 (C))								
	Thindlu Surrounding								
	K Veeranna Layout								
	Main Road	Cum	1	120.00	5.40	0.05	32.40		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	Cross Road 1	Cum	1	100.00	7.00	0.05	35.00		
	Basic rate	9889.00							
	Area weightage 10%	988.90							
	Sub Total	**10877.90**							
	Total						**67.40**	**10877.90**	**733171.00**
13	Providing and applying tack coat with RS1 Bituminous Emulsion using emulsion pressure distributor at the rate of 0.25 kg/m2 on the prepared bituminous surface cleaned with mechanical broom MORTH Specification No. 503 (PWD SR 21-22 Vol III Pg no 29 Item No 5.4 (ii))								
	Thindlu Surrounding								
	K Veeranna Layout								
	Main Road	Sqm	1	120.00	5.40		648.00		
	Cross Road 1	Sqm	1	100.00	7.00		700.00		
	Basic rate	15.00							
	Area weightage 10%	1.50							
	Sub Total	**16.50**							
	Total						**1348.00**	**16.50**	**22242.00**
14	Providing and laying Bituminous Concrete with 40/60 TPH capacity hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 5.4 percent of mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade,level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects (PWD SR 21-22 Vol III Pg no 36 Item No 5.16C)								
	Thindlu Surrounding								
	K Veeranna Layout								
	Main Road	Cum	1	120.00	5.40	0.04	25.92		
	Muniswamappa Layout								
	Cross Road 1	Cum	1	100.00	7.00	0.04	28.00		
	Basic rate	11531.00							
	Area weightage 10%	1153.10							
	Sub Total	**12684.10**							
	Total						**53.92**	**12684.10**	**683927.00**
15	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 g/ m2 area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35:2015.The finished surface to be level, uniform and free from streaks and holes. MORTH Specification No. 803 (PWD SR 21-22 Vol III Pg no 57 Item No 8.15)								
	Thindlu Surrounding	**Sqm**							
	K Veeranna Layout								
	Main Road	Sqm	2	120.00	0.10		24.00		
	Muniswamappa Layout	Sqm							
	Cross Road 1	Sqm	2	100.00	0.10		20.00		
	Basic rate	478.00							
	Area weightage 10%	47.80							
	Sub Total	**525.80**							
	Total						**44.00**	**525.80**	**23136.00**
16	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately) Mix 1:5:10 Using 40 mm nominal size graded crushed coarse aggregates (PWD SR 21-22 Vol-I Pg no 15 Item No 2.1.1)								
	Surrounding Anjaneya Temple	Cum	1	139.90	7.30	0.15	153.19		
	Basic rate	4976.00							
	Area weightage 10%	497.60							

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	Sub Total	**5473.60**							
	Total						**153.19**	**5473.60**	**838504.00**
17	Providing and constructing un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including construction joints, , primer, sealant , curing of concrete slabs for 14- days, and water finishing to lines and grade as per drawing and technical specification clause 1501 with all lead, lifts, loading & unloading charges, cost and conveyance of all materials, labour, equipments etc., complete MORTH Specification No.1501 . as per the directions of the Engineer-in-charge of the work. (PWD SR 2021-22 VolIII -I Pg 138 item no 20.29)								
	New CC Road								
	Surrounding Anjaneya Temple	Cum	1	139.90	7.30	0.15	153.19		
	Basic rate	6837.00							
	Area weightage 10%	683.70							
	Sub Total	**7520.70**							
	Total						**153.19**	**7520.70**	**1152100.00**
18	Cutting transverse contraction joints 3 to 4 mm wide and depth 60mm in concrete slab using concrete cutting machine with diamond studded saw within 48 hours of casting of bay / slab etc. complete including subsequent widening of the groove 8 to 10 mm. wide at top having depth of 15 mm. as directed by Engineer incharge. MORTH Specification No. 602.6.3(PWD SR 2021-22 Vol -III Pg 146 item no 4)								
		m	34.98	7.30			255.32		
		m	1	139.90			139.90		
	Basic rate	70.00							
	Area weightage 10%	7.00							
	Sub Total	**77.00**							
	Total						**395.22**	**77.00**	**30432.00**
19	Providing to contraction joints polysuphide sealent (Pouring grade) confirming to BS : 5212 - 1989 into sawed groove widened at top for sealent reservoir of specified size and shape as per detailed drawing including fixing Polyethylene foam backer rod of required diameter (approx. 25% larger than the initial 3 mm.to 4 mm. joint) overlaid with bond breaking tape as per detailed drawing. Item includes cleaning the joints with water jet / air compressor and allowing joint to become thoroughly dry before sealent is applied and applying primer. (A) Contraction and longitudinal joints (15 mm. deep x 8mm.wide). MORTH Specification No. 602.6.3(PWD SR 2021-22 Vol -III Pg 147 item no 5)								
	Qty Vide frm Item No-25	m					395.22		
	Basic rate	165.00							
	Area weightage 10%	16.50							
	Sub Total	**181.50**							
	Total						**395.22**	**181.50**	**71732.00**
20	**Loading and Unloading of Stone Boulder**/Stone aggregates/ Sand/Kankar/Moorum. (Tipper 5.5 m3) (PWD SR 2021-22 Vol-III Page No.3, Item No.1.1A)								
	Qty Vide frm Item No-01+07	**Cum**					**1008.71**		
	Total						**1008.71**	**129.80**	**130930.00**
	Basic rate	118.00							
	Area Weightage 10%	11.80							
	Total	**129.80**							
21	**Cost of Haulage** Excluding Loading and Unloading Taking output 10 t load and lead 10 km = 100 t.km (PWD SR 2021-22 Vol-III Page No.3, Item No.1.4A)								
	Qty frm Item No-20	**t.Km**		1008.71	1.28		**1291.14**		
	Total						**1291.14**	**105.60**	**136345.00**
	Basic rate	**12.00**							
	8Km 12*8	96.00							
	Area Weightage 10%	9.60							
	Total	**105.60**							

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
								Grand Total	**8749255.00**
								GST Charges (12% of estimated cost)	**1049911.00**
								DPR Charges (1% of estimated cost)	**100000.00**
								Project management And Consultancy Charges(1% of estimated cost)	**100000.00**
								Miscellenious and rounding	**834.00**
								Total Amount	**10000000.00**
									RUPEES ONE CRORE ONLY

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2018-2019, PWD 2021-2022, Issue rates and Data Rates.

Assistant Engineer
BBMP

Assistant Executive Engineer
BBMP

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Executive Engineer
BBMP

RUDRAPRASAD CONSULTANTS
BANGALORE

(3)

DETAILED ESTIMATE

For the Work of

"Improvements to Road and Drains at Canara Bank layout, Ananda Layout and Surrounding area in Ward No.09 (Vidyaranyapura)"

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:-CONSULTANCY SERVICE FOR DETAILED PROJECT REPORT, FIELD SURVEY, GENERAL REPORT, BASIC DRAWING, TECHNICAL REPORT, DETAILED DRAWING, DETAILED COST ESTIMATE FOR PACKAGE NO. 06 (PACKAGE CONSISTS OF 14 WORKS)"

3)Improvements to Road and Drains at Canara Bank layout, Ananda Layout and Surrounding area in Ward No.09 (Vidyaranyapura)

									Estimation Cost.Rs	**10000000.00**
Sl No	**Description of work**	**Unit**	**Mesurement**				**Qty**	**Rate**	**Amount**	
			No.	**L**	**B**	**D**				
1	**Removing and refixing stone slabs of drains and pointing in CM (1:3) (Data Rate)**									
	BS slab of Drain	**Sqm**								
	Open Drain (Sides & Bottom)	**Sqm**	Width=Perimeter of Drain in U Shape							
	Canara Bank Layout									
	1st Main Road	Sqm	2	324.00	1.35		874.80			
	1st Cross Road	Sqm	2	84.00	1.35		226.80			
	6th Cross Road	Sqm	2	180.00	1.35		486.00			
	W0661, 2nd Main	Sqm	1	162.00	1.35		218.70			
						Total	**1806.30**			
	Deduct 30% for Missing/Damaged						541.89			
	Consider 70% Qnty for Removing & Refixing						1264.41			
						Sub Total	**1264.41**			
	Data rate	**121.00**								
	Total						**1264.41**	**121.00**	**152994.00**	
2	Earth work excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work. (PWD SR 2021-22 Vol -I Pg No 5 item no 1.4.1)									
	New Drain	**Cum**								
	For Drain									
	Canara Bank Layout									
	2nd Cross Road	Cum	2	51.00	1.10	1.05	117.81			
	W0661, 2nd Main	Cum	1	162.00	1.10	1.05	187.11			
	Cross Road	Cum	1	32.30	1.10	1.05	37.31			
	Culvert									
	Canara Bank Layout									
		Cum	2	6.10	1.40	0.95	16.23			
		Cum	2	6.50	1.40	0.95	17.29			
		Cum	3	6.40	1.40	0.95	25.54			
	Desilt									
	Canara Bank Layout									
	1st Main Road	Cum	2	324.00	0.45	0.45	131.22			
	1st Cross Road	Cum	2	84.00	0.45	0.45	34.02			
	6th Cross Road	Cum	2	180.00	0.45	0.45	72.90			
	W0661, 2nd Main	Cum	1	162.00	0.45	0.45	32.81			
	Basic rate	186.00								
	Area weightage 10%	18.60								
	Sub Total	**204.60**								
	Total						**672.22**	**204.60**	**137537.00**	
3	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete.(P.No.27,I.No.5.31.1)									
		Sqm								
	Provide 30% for Missing/Damaged	From item no.01					**541.89**			
	Basic rate	700.00								
	Area weightage 6%	42.00								
	Sub Total	**742.00**								
	Total						**541.89**	**742.00**	**402083.00**	

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
4	Providing and laying in position plain cement concrete Mix 1:3:6 (M10) for levelling course for all works in foundation. Using 40 mm nominal size graded crushed coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (PWD SR 2021-22 Vol -I Pg 15 item no 2.1.3)								
	For Drain	**Cum**							
	Canara Bank Layout								
	2nd Cross Road	Cum	2	51.00	1.10	0.15	16.83		
	W0661, 2nd Main	Cum	1	162.00	1.10	0.15	26.73		
	Cross Road	Cum	1	32.30	1.10	0.15	5.33		
	Culvert								
	Canara Bank Layout								
		Cum	2	6.10	1.40	0.15	2.56		
		Cum	2	6.50	1.40	0.15	2.73		
		Cum	3	6.40	1.40	0.15	4.03		
	Basic rate	5752.00							
	Area weightage 10%	575.20							
	Sub Total	**6327.20**							
	Total						**58.21**	**6327.20**	**368329.00**
5	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. M20 (The cost of steel reinforcement & formwork to be paid separately) (PWD SR 2021-22 Vol -I Pg 17 item no 2.4.2)								
	Bottom Raft	Cum							
	Canara Bank Layout								
	2nd Cross Road	Cum	2	51.00	0.90	0.15	13.77		
	W0661, 2nd Main	Cum	1	162.00	0.90	0.15	21.87		
	Ananda Layout								
	Cross Road	Cum	1	32.30	0.90	0.15	4.36		
	Side Wall								
	Canara Bank Layout								
	2nd Cross Road	Cum	4	51.00	0.15	0.75	22.95		
	W0661, 2nd Main	Cum	2	162.00	0.15	0.75	36.45		
	Ananda Layout								
	Cross Road	Cum	2	32.30	0.15	0.75	7.27		
						Sub Total	**106.67**		
	Culvert								
	Bottom Raft	Cum							
	Canara Bank Layout								
		Cum	2	6.10	1.20	0.20	2.93		
		Cum	2	6.50	1.20	0.20	3.12		
		Cum	3	6.40	1.20	0.20	4.61		
	Side Wall								
	New Culvert	Cum	4	6.10	0.23	0.60	3.37		
		Cum	4	6.50	0.23	0.60	3.59		
		Cum	6	6.40	0.23	0.60	5.30		
						Sub Total	**22.91**		
	Basic rate	6256.00							
	Add 5% for Shuttering	312.80							
		6568.80							
	Area weightage 10%	656.88							
	Sub Total	**7225.68**							
	Total						**129.58**	**7225.68**	**936293.00**

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
6	Supplying, Fitting and Placing TMT Fe550 bar Reinforcement in sub-structure complete as per Drawing and Technical Specifications. MORTH Specification NO.1600&2200 (PWD SR 2021-22 Vol -III Pg 99 item no 13.1)								
	For Drain	Cum					106.67		
		kg	Steel assumed 60Kg/Cum of Concrete				6400.08		
		tonne					**6.40**		
	For Culvert	Cum					22.91		
		kg	Steel assumed 90 Kg/Cum of Concrete				2061.94		
		tonne					**2.06**		
	Basic rate	103329.00							
	Area weightage 10%	10332.90							
	Sub Total	**113661.90**							
	Total						**8.46**	**113661.90**	**961809.00**
7	Providing and Fixing pre cast covering Slab 100mm thick made out of CC , Jelly 20mm Down Size with steel reinforcement including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete as per Engineer incharge. (Data Rate)								
	Canara Bank Layout								
	2nd Cross Road	Sqm	2	51.00	0.90		91.80		
	W0661, 2nd Main	Sqm	1	162.00	0.90		145.80		
	Ananda Layout								
	Cross Road	Sqm	1	32.30	0.90		29.07		
	Data rate	**2072.00**							
	Total						**266.67**	**2072.00**	**552541.00**
8	Providing and Fixing pre cast covering Slab 230mm thick made out of CC , Jelly 20mm Down Size with steel reinforcement including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete as per Engineer incharge. (Data Rate)								
	Culvert cover Slab	Sqm							
	Canara Bank Layout								
		Sqm	2	6.10	1.20		14.64		
		Sqm	2	6.50	1.20		15.60		
		Sqm	3	6.40	1.20		23.04		
	Data rate	**5037.00**							
	Total						**53.28**	**5037.00**	**268372.00**
9	Earth work in surface excavation by mechanical means for lowering & leveling the ground for all works other than foundation in all kinds of soils & upto depth not exceeding 300mm as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter including dressing of excavated surfaces, disposing off or levelling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools, usage of machinery & other appurtenances required to complete the work. In all kinds of soils upto 300 mm depth. (PWD SR 21-22 Vol I Pg no 8 Item No 1.12)								
	Road Cut Portion	**Cum**							
	Canara Bank Layout								
	1st Main Road	Cum	1	11.30	1.30	0.23	3.38		
		Cum	1	13.20	1.80	0.23	5.46		
		Cum	3	7.90	1.20	0.23	6.54		
		Cum	2	8.10	2.40	0.23	8.94		
		Cum	1	5.50	3.10	0.23	3.92		
		Cum	3	7.10	1.50	0.23	7.35		
		Cum	2	324.00	0.50	0.23	74.52		
	1st Cross Road	Cum	3	5.80	2.40	0.23	9.60		
		Cum	2	7.10	1.60	0.23	5.23		
		Cum	2	9.30	1.90	0.23	8.13		
		Cum	1	8.40	2.80	0.23	5.41		
		Cum	2	84.00	0.50	0.23	19.32		
	6th Cross Road	Cum	2	9.00	0.90	0.23	3.73		
		Cum	2	9.60	1.60	0.23	7.07		
		Cum	1	10.00	1.10	0.23	2.53		
		Cum	1	6.50	1.50	0.23	2.24		
		Cum	3	8.50	1.80	0.23	10.56		
		Cum	3	7.10	1.90	0.23	9.31		
		Cum	1	5.60	1.30	0.23	1.67		
		Cum	1	3.00	1.20	0.23	0.83		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
		Cum	2	180.00	0.40	0.23	33.12		
	W0661, 2nd Main	Cum	2	9.00	1.30	0.23	5.38		
		Cum	2	5.50	1.60	0.23	4.05		
		Cum	1	6.00	1.90	0.23	2.62		
		Cum	3	5.50	1.30	0.23	4.93		
		Cum	1	5.00	1.30	0.23	1.50		
		Cum	1	6.30	2.10	0.23	3.04		
		Cum	2	162.00	0.50	0.23	37.26		
	2nd Cross Road	Cum	1	6.70	1.10	0.23	1.70		
		Cum	1	5.90	1.90	0.23	2.58		
		Cum	1	4.90	1.30	0.23	1.47		
		Cum	1	3.60	1.60	0.23	1.32		
		Cum	2	2.30	1.20	0.23	1.27		
		Cum	2	51.00	0.50	0.23	11.73		
	Basic rate	65.00							
	Area weightage 10%	6.50							
	Sub Total	**71.50**							
	Total						**307.70**	**71.50**	**22001.00**
10	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density MORTH Specification No. 406 (PWD SR 21-22 Vol III Pg no 24 Item No 4.27 (A)								
	Road Cut Portion	Cum							
	Canara Bank Layout								
	1st Main Road	Cum	1	11.30	1.30	0.23	3.38		
		Cum	1	13.20	1.80	0.23	5.46		
		Cum	3	7.90	1.20	0.23	6.54		
		Cum	2	8.10	2.40	0.23	8.94		
		Cum	1	5.50	3.10	0.23	3.92		
		Cum	3	7.10	1.50	0.23	7.35		
		Cum	2	324.00	0.50	0.23	74.52		
	1st Cross Road	Cum	3	5.80	2.40	0.23	9.60		
		Cum	2	7.10	1.60	0.23	5.23		
		Cum	2	9.30	1.90	0.23	8.13		
		Cum	1	8.40	2.80	0.23	5.41		
		Cum	2	84.00	0.50	0.23	19.32		
	6th Cross Road	Cum	2	9.00	0.90	0.23	3.73		
		Cum	2	9.60	1.60	0.23	7.07		
		Cum	1	10.00	1.10	0.23	2.53		
		Cum	1	6.50	1.50	0.23	2.24		
		Cum	3	8.50	1.80	0.23	10.56		
		Cum	3	7.10	1.90	0.23	9.31		
		Cum	1	5.60	1.30	0.23	1.67		
		Cum	1	3.00	1.20	0.23	0.83		
		Cum	2	180.00	0.40	0.23	33.12		
	W0661, 2nd Main	Cum	2	9.00	1.30	0.23	5.38		
		Cum	2	5.50	1.60	0.23	4.05		
		Cum	1	6.00	1.90	0.23	2.62		
		Cum	3	5.50	1.30	0.23	4.93		
		Cum	1	5.00	1.30	0.23	1.50		
		Cum	1	6.30	2.10	0.23	3.04		
		Cum	2	162.00	0.50	0.23	37.26		
	2nd Cross Road	Cum	1	6.70	1.10	0.23	1.70		
		Cum	1	5.90	1.90	0.23	2.58		
		Cum	1	4.90	1.30	0.23	1.47		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
		Cum	1	3.60	1.60	0.23	1.32		
		Cum	2	2.30	1.20	0.23	1.27		
		Cum	2	51.00	0.50	0.23	11.73		
	Basic rate	2394.00							
	Area weightage 10%	239.40							
	Sub Total	**2633.40**							
	Total						**307.70**	**2633.40**	**810306.00**
11	Providing and applying primer coat with SS1 grade Bitumen Emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.90 kg per m2 using mechanical means MORTH Specification No. 502 (PWD SR 21-22 Vol III Pg no 29 Item No 5.1 A (i))								
	Road Cut Portion								
	Canara Bank Layout								
	1st Main Road	Sqm	1	11.30	1.30		14.69		
		Sqm	1	13.20	1.80		23.76		
		Sqm	3	7.90	1.20		28.44		
		Sqm	2	8.10	2.40		38.88		
		Sqm	1	5.50	3.10		17.05		
		Sqm	3	7.10	1.50		31.95		
		Sqm	2	324.00	0.50		324.00		
	1st Cross Road	Sqm	3	5.80	2.40		41.76		
		Sqm	2	7.10	1.60		22.72		
		Sqm	2	9.30	1.90		35.34		
		Sqm	1	8.40	2.80		23.52		
		Sqm	2	84.00	0.50		84.00		
	6th Cross Road	Sqm	2	9.00	0.90		16.20		
		Sqm	2	9.60	1.60		30.72		
		Sqm	1	10.00	1.10		11.00		
		Sqm	1	6.50	1.50		9.75		
		Sqm	3	8.50	1.80		45.90		
		Sqm	3	7.10	1.90		40.47		
		Sqm	1	5.60	1.30		7.28		
		Sqm	1	3.00	1.20		3.60		
		Sqm	2	180.00	0.40		144.00		
	W0661, 2nd Main	Sqm	2	9.00	1.30		23.40		
		Sqm	2	5.50	1.60		17.60		
		Sqm	1	6.00	1.90		11.40		
		Sqm	3	5.50	1.30		21.45		
		Sqm	1	5.00	1.30		6.50		
		Sqm	1	6.30	2.10		13.23		
		Sqm	2	162.00	0.50		162.00		
	2nd Cross Road	Sqm	1	6.70	1.10		7.37		
		Sqm	1	5.90	1.90		11.21		
		Sqm	1	4.90	1.30		6.37		
		Sqm	1	3.60	1.60		5.76		
		Sqm	2	2.30	1.20		5.52		
		Sqm	2	51.00	0.50		51.00		
	Provide 20% Profile Correction for old Road								
	Canara Bank Layout								
	1st Main Road	Sqm	0.2	324.00	6.00		388.80		
	1st Cross Road	Sqm	0.2	84.00	5.50		92.40		
	6th Cross Road	Sqm	0.2	180.00	5.70		205.20		
	W0661, 2nd Main	Sqm	0.2	162.00	5.70		184.68		
	2nd Cross Road	Sqm	0.2	51.00	6.20		63.24		
	Basic rate	44.00							
	Area weightage 10%	4.40							
	Sub Total	**48.40**							
	Total						**2272.16**	**48.40**	**109973.00**

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
12	Providing and laying Dense Graded Bituminous Macadam with 40/60 TPH capacity HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 505 complete in all respects (PWD SR 21-22 Vol III Pg no 33 Item No 5.12 (C))								
	Road Cut Portion								
	Canara Bank Layout								
	1st Main Road	Cum	1	11.30	1.30	0.05	0.73		
		Cum	1	13.20	1.80	0.05	1.19		
		Cum	3	7.90	1.20	0.05	1.42		
		Cum	2	8.10	2.40	0.05	1.94		
		Cum	1	5.50	3.10	0.05	0.85		
		Cum	3	7.10	1.50	0.05	1.60		
		Cum	2	324.00	0.50	0.05	16.20		
	1st Cross Road	Cum	3	5.80	2.40	0.05	2.09		
		Cum	2	7.10	1.60	0.05	1.14		
		Cum	2	9.30	1.90	0.05	1.77		
		Cum	1	8.40	2.80	0.05	1.18		
		Cum	2	84.00	0.50	0.05	4.20		
	6th Cross Road	Cum	2	9.00	0.90	0.05	0.81		
		Cum	2	9.60	1.60	0.05	1.54		
		Cum	1	10.00	1.10	0.05	0.55		
		Cum	1	6.50	1.50	0.05	0.49		
		Cum	3	8.50	1.80	0.05	2.30		
		Cum	3	7.10	1.90	0.05	2.02		
		Cum	1	5.60	1.30	0.05	0.36		
		Cum	1	3.00	1.20	0.05	0.18		
		Cum	2	180.00	0.40	0.05	7.20		
	W0661, 2nd Main	Cum	2	9.00	1.30	0.05	1.17		
		Cum	2	5.50	1.60	0.05	0.88		
		Cum	1	6.00	1.90	0.05	0.57		
		Cum	3	5.50	1.30	0.05	1.07		
		Cum	1	5.00	1.30	0.05	0.33		
		Cum	1	6.30	2.10	0.05	0.66		
		Cum	2	162.00	0.50	0.05	8.10		
	2nd Cross Road	Cum	1	6.70	1.10	0.05	0.37		
		Cum	1	5.90	1.90	0.05	0.56		
		Cum	1	4.90	1.30	0.05	0.32		
		Cum	1	3.60	1.60	0.05	0.29		
		Cum	2	2.30	1.20	0.05	0.28		
		Cum	2	51.00	0.50	0.05	2.55		
	Provide 20% Profile Correction for old Road								
	Canara Bank Layout								
	1st Main Road	Cum	0.2	324.00	6.00	0.05	19.44		
	1st Cross Road	Cum	0.2	84.00	5.50	0.05	4.62		
	6th Cross Road	Cum	0.2	180.00	5.70	0.05	10.26		
	W0661, 2nd Main	Cum	0.2	162.00	5.70	0.05	9.23		
	2nd Cross Road	Cum	0.2	51.00	6.20	0.05	3.16		
	Basic rate	9889.00							
	Area weightage 10%	988.90							
	Sub Total	**10877.90**							
	Total						**113.61**	**10877.90**	**1235817.00**
13	Providing and applying tack coat with RS1 Bituminous Emulsion using emulsion pressure distributor at the rate of 0.25 kg/m2 on the prepared bituminous surface cleaned with mechanical broom MORTH Specification No. 503 (PWD SR 21-22 Vol III Pg no 29 Item No 5.4 (ii))								
	Canara Bank Layout								
	1st Main Road	Sqm	1	324.00	6.00		1944.00		
	1st Cross Road	Sqm	1	84.00	5.50		462.00		
	6th Cross Road	Sqm	1	180.00	5.70		1026.00		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	W0661, 2nd Main	Sqm	1	162.00	5.70		923.40		
	2nd Cross Road	Sqm	1	51.00	6.20		316.20		
	Basic rate	15.00							
	Area weightage 10%	1.50							
	Sub Total	**16.50**							
	Total						**4671.60**	**16.50**	**77082.00**
14	Providing and laying Bituminous Concrete with 40/60 TPH capacity hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 5.4 percent of mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade,level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects (PWD SR 21-22 Vol III Pg no 36 Item No 5.16C)								
	Canara Bank Layout								
	1st Main Road	Cum	1	324.00	6.00	0.04	77.76		
	1st Cross Road	Cum	1	84.00	5.50	0.04	18.48		
	6th Cross Road	Cum	1	180.00	5.70	0.04	41.04		
	W0661, 2nd Main	Cum	1	162.00	5.70	0.04	36.94		
	2nd Cross Road	Cum	1	51.00	6.20	0.04	12.65		
	Basic rate	11531.00							
	Area weightage 10%	1153.10							
	Sub Total	**12684.10**							
	Total						**186.86**	**12684.10**	**2370202.00**
15	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 g/ m2 area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35:2015.The finished surface to be level, uniform and free from streaks and holes. MORTH Specification No. 803 (PWD SR 21-22 Vol III Pg no 57 Item No 8.15)								
	Canara Bank Layout	**Sqm**							
	1st Main Road	Sqm	2	324.00	0.10		64.80		
	1st Cross Road	Sqm	2	84.00	0.10		16.80		
	6th Cross Road	Sqm	2	180.00	0.10		36.00		
	W0661, 2nd Main	Sqm	2	162.00	0.10		32.40		
	2nd Cross Road	Sqm	2	51.00	0.10		10.20		
	Basic rate	478.00							
	Area weightage 10%	47.80							
	Sub Total	**525.80**							
	Total						**160.20**	**525.80**	**84234.00**
16	**Loading and Unloading of Stone Boulder**/Stone aggregates/ Sand/Kankar/Moorum. (Tipper 5.5 m3) (PWD SR 2021-22 Vol-III Page No.3, Item No.1.1A)								
	Qty Vide frm Item No-02+09	**Cum**					**979.93**		
	Total						**979.93**	**129.80**	**127195.00**
	Basic rate	118.00							
	Area Weightage 10%	11.80							
	Total	**129.80**							
17	**Cost of Haulage** Excluding Loading and Unloading Taking output 10 t load and lead 10 km = 100 t.km (PWD SR 2021-22 Vol-III Page No.3, Item No.1.4A)								
	Qty frm Item No-16	**t.Km**		979.93	1.28		**1254.31**		
	Total						**1254.31**	**105.60**	**132455.00**
	Basic rate	12.00							
	8Km 12*8	96.00							
	Area Weightage 10%	9.60							
	Total	**105.60**							
								Grand Total	**8749223.00**
								GST Charges (12% of estimated cost)	**1049907.00**
								DPR Charges (1% of estimated cost)	**100000.00**
								Project management And Consultancy Charges(1% of estimated cost)	**100000.00**

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
								Miscellenious and rounding	870.00
								Total Amount	10000000.00
								RUPEES CRORE ONLY	

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2018-2019, PWD 2021-2022, Issue rates and Data Rates.

Assistant Engineer
BBMP

Assistant Executive Engineer
BBMP

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Executive Engineer
BBMP

RUDRAPRASAD CONSULTANTS
BANGALORE

4

DETAILED ESTIMATE

For the Work of

"Improvements to Road and Drains at Sir M.V Layout Parwathamma Layout and Surrounding Area in Ward No.09 (Vidyaranyapura)"

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:- CONSULTANCY SERVICE FOR DETAILED PROJECT REPORT, FIELD SURVEY, GENERAL REPORT, BASIC DRAWING, TECHNICAL REPORT, DETAILED DRAWING, DETAILED COST ESTIMATE FOR PACKAGE NO. 06 (PACKAGE CONSISTS OF 14 WORKS)"

4)Improvements to Road and Drains at Sir M.V Layout Parwathamma Layout and Surrounding Area in Ward No.09 (Vidyaranyapura)

								Estimation Cost.Rs	**10000000.00**
Sl No	**Description of work**	**Unit**	**Mesurement**				**Qty**	**Rate**	**Amount**
			No.	**L**	**B**	**D**			
1	Earth work excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work. (PWD SR 2021-22 Vol -I Pg No 5 item no 1.4.1)								
	New Drain	**Cum**							
	Parvatamma Layout								
	2nd Main Road	Cum	2	207.00	1.10	1.05	478.17		
	3rd Main Road	Cum	2	187.50	1.10	1.05	433.13		
	Culvert								
	Sir M.V.Layout								
		Cum	3	6.70	1.40	0.95	26.73		
	Basic rate	186.00							
	Area weightage 10%	18.60							
	Sub Total	**204.60**							
	Total						**938.03**	**204.60**	**191921.00**
2	Providing and laying in position plain cement concrete Mix 1:3:6 (M10) for levelling course for all works in foundation. Using 40 mm nominal size graded crushed coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (PWD SR 2021-22 Vol -I Pg 15 item no 2.1.3)								
	For Drain	**Cum**							
	Parvatamma Layout								
	2nd Main Road	Cum	2	207.00	1.10	0.15	68.31		
	3rd Main Road	Cum	2	187.50	1.10	0.15	61.88		
	Culvert								
	Sir M.V.Layout								
		Cum	3	6.70	1.40	0.15	4.22		
	Basic rate	5752.00							
	Area weightage 10%	575.20							
	Sub Total	**6327.20**							
	Total						**134.41**	**6327.20**	**850414.00**
3	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. M20 (The cost of steel reinforcement & formwork to be paid separately) (PWD SR 2021-22 Vol -I Pg 17 item no 2.4.2)								
	Bottom Raft	Cum							
	Parvatamma Layout								
	2nd Main Road	Cum	2	207.00	0.90	0.15	55.89		
	3rd Main Road	Cum	2	187.50	0.90	0.15	50.63		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	Side Wall								
	Parvatamma Layout								
	2nd Main Road	Cum	4	207.00	0.15	0.75	93.15		
	3rd Main Road	Cum	4	187.50	0.15	0.75	84.38		
						Sub Total	**284.04**		
	Culvert								
	Bottom Raft								
	Sir M.V.Layout								
		Cum	3	6.70	1.20	0.20	4.82		
	Side Wall								
	Sir M.V.Layout								
		Cum	6	6.70	0.23	0.60	5.55		
						Sub Total	**10.37**		
	Basic rate	6256.00							
	Add 5% for Shuttering	312.80							
		6568.80							
	Area weightage 10%	656.88							
	Sub Total	**7225.68**							
	Total						**294.41**	**7225.68**	**2127325.00**
4	Supplying, Fitting and Placing TMT Fe550 bar Reinforcement in sub-structure complete as per Drawing and Technical Specifications. MORTH Specification NO.1600&2200 (PWD SR 2021-22 Vol -III Pg 99 item no 13.1)								
	For Drain	Cum					284.04		
		kg	Steel assumed 60Kg/Cum of Concrete				17042.40		
		tonne					**17.04**		
	For Culvert	Cum					10.37		
		kg	Steel assumed 90 Kg/Cum of Concrete				933.44		
		tonne					**0.93**		
	Basic rate	103329.00							
	Area weightage 10%	10332.90							
	Sub Total	**113661.90**							
	Total						**17.98**	**113661.90**	**2043169.00**
5	Providing and Fixing pre cast covering Slab 100mm thick made out of CC , Jelly 20mm Down Size with steel reinforcement including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete as per Engineer incharge. (Data Rate)								
	Parvatamma Layout								
	2nd Main Road	Sqm	2	207.00	0.90		**372.60**		
	3rd Main Road	Sqm	2	187.50	0.90		**337.50**		
	Data rate	**2072.00**							
	Total						**710.10**	**2072.00**	**1471328.00**
6	Providing and Fixing pre cast covering Slab 230mm thick made out of CC , Jelly 20mm Down Size with steel reinforcement including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete as per Engineer incharge. (Data Rate)								
	Culvert cover Slab	Sqm							
	Sir M.V.Layout								
		Sqm	3	6.70	1.20		24.12		
	Data rate	**5037.00**							
	Total						**24.12**	**5037.00**	**121493.00**

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
7	Earth work in surface excavation by mechanical means for lowering & leveling the ground for all works other than foundation in all kinds of soils & upto depth not exceeding 300mm as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter including dressing of excavated surfaces, disposing off or levelling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools, usage of machinery & other appurtenances required to complete the work. In all kinds of soils upto 300 mm depth. (PWD SR 21-22 Vol I Pg no 8 Item No 1.12)								
	New Road	**Cum**							
	Road Cut Portion	**Cum**							
	Parvatamma Layout								
	2nd Main Road	Cum	3	5.00	1.30	0.23	4.49		
		Cum	1	9.80	1.60	0.23	3.61		
		Cum	2	9.50	1.10	0.23	4.81		
		Cum	1	207.00	0.45	0.23	21.42		
	3rd Main Road	Cum	3	8.10	1.20	0.23	6.71		
		Cum	2	9.30	1.90	0.23	8.13		
		Cum	1	11.30	1.50	0.23	3.90		
		Cum	3	6.90	2.40	0.23	11.43		
		Cum	1	12.40	1.40	0.23	3.99		
		Cum	1	187.50	0.50	0.23	21.56		
	Basic rate	65.00							
	Area weightage 10%	6.50							
	Sub Total	**71.50**							
	Total						**90.04**	**71.50**	**6438.00**
8	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density MORTH Specification No. 406 (PWD SR 21-22 Vol III Pg no 24 Item No 4.27 (A)								
	Road Cut Portion	**Cum**							
	Parvatamma Layout								
	2nd Main Road	Cum	3	5.00	1.30	0.23	4.49		
		Cum	1	9.80	1.60	0.23	3.61		
		Cum	2	9.50	1.10	0.23	4.81		
		Cum	1	207.00	0.45	0.23	21.42		
	3rd Main Road	Cum	3	8.10	1.20	0.23	6.71		
		Cum	2	9.30	1.90	0.23	8.13		
		Cum	1	11.30	1.50	0.23	3.90		
		Cum	3	6.90	2.40	0.23	11.43		
		Cum	1	12.40	1.40	0.23	3.99		
		Cum	1	187.50	0.50	0.23	21.56		
	Basic rate	2394.00							
	Area weightage 10%	239.40							
	Sub Total	**2633.40**							
	Total						**90.04**	**2633.40**	**237107.00**
9	Providing and applying primer coat with SS1 grade Bitumen Emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.90 kg per m2 using mechanical means MORTH Specification No. 502 (PWD SR 21-22 Vol III Pg no 29 Item No 5.1 A (i))								
	Road Cut Portion								
	Parvatamma Layout								
	2nd Main Road	Sqm	3	5.00	1.30		19.50		
		Sqm	1	9.80	1.60		15.68		
		Sqm	2	9.50	1.10		20.90		
		Sqm	1	207.00	0.45		93.15		
	3rd Main Road	Sqm	3	8.10	1.20		29.16		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
		Sqm	2	9.30	1.90		35.34		
		Sqm	1	11.30	1.50		16.95		
		Sqm	3	6.90	2.40		49.68		
		Sqm	1	12.40	1.40		17.36		
		Sqm	1	187.50	0.50		93.75		
	Provide 20% Profile Correction for old Road								
	Parvatamma Layout								
	2nd Main Road	Sqm	0.2	207.00	4.70		194.58		
	3rd Main Road	Sqm	0.2	187.50	4.40		165.00		
	Basic rate	44.00							
	Area weightage 10%	4.40							
	Sub Total	**48.40**							
	Total						**751.05**	**48.40**	**36351.00**
10	Providing and laying Dense Graded Bituminous Macadam with 40/60 TPH capacity HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 505 complete in all respects (PWD SR 21-22 Vol III Pg no 33 Item No 5.12 (C))								
	Road Cut Portion								
	Parvatamma Layout								
	2nd Main Road	Cum	3	5.00	1.30	0.05	0.98		
		Cum	1	9.80	1.60	0.05	0.78		
		Cum	2	9.50	1.10	0.05	1.05		
		Cum	1	207.00	0.45	0.05	4.66		
	3rd Main Road	Cum	3	8.10	1.20	0.05	1.46		
		Cum	2	9.30	1.90	0.05	1.77		
		Cum	1	11.30	1.50	0.05	0.85		
		Cum	3	6.90	2.40	0.05	2.48		
		Cum	1	12.40	1.40	0.05	0.87		
		Cum	1	187.50	0.50	0.05	4.69		
	Provide 20% Profile Correction for old Road								
	Parvatamma Layout								
	2nd Main Road	Cum	0.20	207.00	4.70	0.05	9.73		
	3rd Main Road	Cum	0.20	187.50	4.40	0.05	8.25		
	Basic rate	9889.00							
	Area weightage 10%	988.90							
	Sub Total	**10877.90**							
	Total						**37.55**	**10877.90**	**408493.00**
11	Providing and applying tack coat with RS1 Bituminous Emulsion using emulsion pressure distributor at the rate of 0.25 kg/m2 on the prepared bituminous surface cleaned with mechanical broom MORTH Specification No. 503 (PWD SR 21-22 Vol III Pg no 29 Item No 5.4 (ii))								
	Parvatamma Layout								
	2nd Main Road	Sqm	1	207.00	4.70		972.90		
	3rd Main Road	Sqm	1	187.50	4.40		825.00		
	Basic rate	15.00							
	Area weightage 10%	1.50							
	Sub Total	**16.50**							
	Total						**1797.90**	**16.50**	**29666.00**

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
12	Providing and laying Bituminous Concrete with 40/60 TPH capacity hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 5.4 percent of mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade,level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects (PWD SR 21-22 Vol III Pg no 36 Item No 5.16C)								
	Parvatamma Layout								
	2nd Main Road	Cum	1	207.00	4.70	0.04	38.92		
	3rd Main Road	Cum	1	187.50	4.40	0.04	33.00		
	Basic rate	11531.00							
	Area weightage 10%	1153.10							
	Sub Total	**12684.10**							
	Total						**71.92**	**12684.10**	**912190.00**
13	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 g/ m2 area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35:2015.The finished surface to be level, uniform and free from streaks and holes. MORTH Specification No. 803 (PWD SR 21-22 Vol III Pg no 57 Item No 8.15)								
	Parvatamma Layout								
	2nd Main Road	Sqm	2	207.00	0.10		41.40		
	3rd Main Road	Sqm	2	187.50	0.10		37.50		
	Basic rate	478.00							
	Area weightage 10%	47.80							
	Sub Total	**525.80**							
	Total						**78.90**	**525.80**	**41486.00**
14	**Loading and Unloading of Stone Boulder**/Stone aggregates/ Sand/Kankar/Moorum. (Tipper 5.5 m3) (PWD SR 2021-22 Vol-III Page No.3, Item No.1.1A)								
	Qty Vide frm Item No-01+07	**Cum**					**1028.07**		
	Total						**1028.07**	**129.80**	**133443.00**
	Basic rate	118.00							
	Area Weightage 10%	11.80							
	Total	**129.80**							
15	**Cost of Haulage** Excluding Loading and Unloading Taking output 10 t load and lead 10 km = 100 t.km (PWD SR 2021-22 Vol-III Page No.3, Item No.1.4A)								
	Qty frm Item No-14	**t.Km**		1028.07	1.28		**1315.92**		
	Total						**1315.92**	**105.60**	**138962.00**
	Basic rate	**12.00**							
	8Km 12*8	96.00							
	Area Weightage 10%	9.60							
	Total	**105.60**							
								Grand Total	**8749786.00**
								GST Charges (12% of estimated cost)	**1049975.00**
								DPR Charges (1% of estimated cost)	**100000.00**
								Project management And Consultancy Charges(1% of estimated cost)	**100000.00**

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
								Miscellenious and rounding	239.00
								Total Amount	10000000.00
								RUPEES ONE CRORE ONLY	

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2018-2019, PWD 2021-2022, Issue rates and Data Rates.

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RUDRAPRASAD CONSULTANTS
BANGALORE

(5)

DETAILED ESTIMATE

For the Work of

"Improvements to road and Drains at Telecom Layout, Ganeshanagara and Surrounding Area in Ward No.09 (Vidyaranyapura)"

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:-CONSULTANCY SERVICE FOR DETAILED PROJECT REPORT, FIELD SURVEY, GENERAL REPORT, BASIC DRAWING, TECHNICAL REPORT, DETAILED DRAWING, DETAILED COST ESTIMATE FOR PACKAGE NO. 06 (PACKAGE CONSISTS OF 14 WORKS)"

5) Improvements to road and Drains at Telecom Layout, Ganeshanagara and Surrounding Area in Ward No.09 (Vidyaranyapura)

									Estimation Cost.Rs	**10000000.00**
Sl No	**Description of work**	**Unit**	**Mesurement**				**Qty**	**Rate**	**Amount**	
			No.	**L**	**B**	**D**				
1	Earth work excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work. (PWD SR 2021-22 Vol -I Pg No 5 item no 1.4.1)									
	New Drain	**Cum**								
	For Drain	Cum								
	Telecom Layout									
	4th Cross Road	Cum	1	180.00	1.10	1.05	207.90			
	Ganesha Nagara									
	Main Road	Cum	2	347.00	1.10	1.05	801.57			
	Culvert									
	Telecom Layout									
	4th Cross Road	Cum	1	5.80	1.40	0.95	7.71			
	Ganesha Nagara									
	Main Road	Cum	11	6.50	1.40	0.95	95.10			
	Basic rate	186.00								
	Area weightage 10%	18.60								
	Sub Total	**204.60**								
	Total						**1112.28**	**204.60**	**227573.00**	
2	Providing and laying in position plain cement concrete Mix 1:3:6 (M10) for levelling course for all works in foundation. Using 40 mm nominal size graded crushed coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (PWD SR 2021-22 Vol -I Pg 15 item no 2.1.3)									
	For Drain	**Cum**								
	Telecom Layout									
	4th Cross Road	Cum	1	180.00	1.10	0.15	29.70			
	Ganesha Nagara									
	Main Road	Cum	2	347.00	1.10	0.15	114.51			
	Culvert									
	Telecom Layout									
	4th Cross Road	Cum	1	5.80	1.40	0.15	1.22			
	Ganesha Nagara									
	Main Road	Cum	11	6.50	1.40	0.15	15.02			
	Basic rate	5752.00								
	Area weightage 10%	575.20								
	Sub Total	**6327.20**								
	Total						**160.44**	**6327.20**	**1015155.00**	

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
3	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. M20 (The cost of steel reinforcement & formwork to be paid separately) (PWD SR 2021-22 Vol -I Pg 17 item no 2.4.2)								
	Bottom Raft	Cum							
	Telecom Layout								
	4th Cross Road	Cum	1	180.00	0.90	0.15	24.30		
	Ganesha Nagara								
	Main Road	Cum	2	347.00	0.90	0.15	93.69		
	Side Wall								
	4th Cross Road	Cum	2	180.00	0.15	0.75	40.50		
	Ganesha Nagara								
	Main Road	Cum	4	347.00	0.15	0.75	156.15		
						Sub Total	**314.64**		
	Culvert								
	Bottom Raft	Cum							
	Telecom Layout								
	4th Cross Road	Cum	1	5.80	1.20	0.20	1.39		
	Ganesha Nagara								
	Main Road	Cum	11	6.50	1.20	0.20	17.16		
	Side Wall								
	4th Cross Road	Cum	2	5.80	0.23	0.60	1.60		
	Ganesha Nagara								
	Main Road	Cum	22	6.50	0.23	0.60	19.73		
						Sub Total	**39.89**		
	Basic rate	6256.00							
	Add 5% for Shuttering	312.80							
		6568.80							
	Area weightage 10%	656.88							
	Sub Total	**7225.68**							
	Total						**354.53**	**7225.68**	**2561698.00**
4	Supplying, Fitting and Placing TMT Fe550 bar Reinforcement in sub-structure complete as per Drawing and Technical Specifications. MORTH Specification NO.1600&2200 (PWD SR 2021-22 Vol -III Pg 99 item no 13.1)								
	For Drain	Cum					314.64		
		kg	Steel assumed 60Kg/Cum of Concrete				18878.40		
		tonne					**18.88**		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	For Culvert	Cum					39.89		
		kg	Steel assumed 90 Kg/Cum of Concrete				3589.81		
		tonne					**3.59**		
	Basic rate	103329.00							
	Area weightage 10%	10332.90							
	Sub Total	**113661.90**							
	Total						**22.47**	**113661.90**	**2553780.00**
5	Providing and Fixing pre cast covering Slab 100mm thick made out of CC , Jelly 20mm Down Size with steel reinforcement including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete as per Engineer incharge. (Data Rate)								
	Telecom Layout								
	4th Cross Road	Sqm	1	180.00	0.90		162.00		
	Ganesha Nagara								
	Main Road	Sqm	2	347.00	0.90		624.60		
	Data rate	**2072.00**							
	Total						**786.60**	**2072.00**	**1629836.00**
6	Providing and Fixing pre cast covering Slab 230mm thick made out of CC , Jelly 20mm Down Size with steel reinforcement including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete as per Engineer incharge. (Data Rate)								
	Culvert cover Slab	Sqm							
	Telecom Layout								
	4th Cross Road	Sqm	1	5.80	1.20		6.96		
	Ganesha Nagara								
	Main Road	Sqm	11	6.50	1.20		85.80		
	Data rate	**5037.00**							
	Total						**92.76**	**5037.00**	**467233.00**
7	**Loading and Unloading of Stone Boulder**/Stone aggregates/ Sand/Kankar/Moorum. (Tipper 5.5 m3) (PWD SR 2021-22 Vol-III Page No.3, Item No.1.1A)								
	Qty Vide frm Item No-01	**Cum**					**1112.28**		
	Total						**1112.28**	**129.80**	**144374.00**
	Basic rate	118.00							
	Area Weightage 10%	11.80							
	Total	**129.80**							
8	**Cost of Haulage** Excluding Loading and Unloading Taking output 10 t load and lead 10 km = 100 t.km (PWD SR 2021-22 Vol-III Page No.3, Item No.1.4A)								
	Qty frm Item No-07	**t.Km**		1112.28	1.28		**1423.72**		
	Total						**1423.72**	**105.60**	**150345.00**
	8Km 12*8	96.00							
	Area Weightage 10%	9.60							
	Total	**105.60**							
								Grand Total	**8749994.00**
								GST Charges (12% of estimated cost)	**1050000.00**
								DPR Charges (1% of estimated cost)	**100000.00**
								Project management And Consultancy Charges(1% of estimated cost)	**100000.00**

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
								Miscellenious and rounding	6.00
								Total Amount	**10000000.00**
								RUPEES ONE CRORE ONLY	

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2018-2019, PWD 2021-2022, Issue rates and Data Rates.

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RUDRAPRASAD CONSULTANTS BANGALORE

6

DETAILED ESTIMATE

For the Work of

"Improvements to Road and Drains at HMT Layout 1st Block, 2nd Block and Surrounding area in Ward No.09 (Vidyaranyapura)"

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:- CONSULTANCY SERVICE FOR DETAILED PROJECT REPORT, FIELD SURVEY, GENERAL REPORT, BASIC DRAWING, TECHNICAL REPORT, DETAILED DRAWING, DETAILED COST ESTIMATE FOR PACKAGE NO. 06 (PACKAGE CONSISTS OF 14 WORKS)

6) Improvements to Road and Drains at HMT Layout 1st Block, 2nd Block and Surrounding area in Ward No.09 (Vidyaranyapura)

									Estimation Cost.Rs	**10000000.00**
Sl No	**Description of work**	**Unit**	**Mesurement**				**Qty**	**Rate**	**Amount**	
			No.	**L**	**B**	**D**				
1	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead I By Manual Means B Cement Concrete Grade M-15 & M-20 (PWD SR 2021-22 Vol III Pg no 8 Item No 2.7(i))									
	Culvert									
	HMT 1st Block									
		Cum	3	6.50	1.50	0.23	6.73			
	HMT 2nd Block	Cum	1	6.10	1.50	0.23	2.10			
	Basic rate	731.00								
	Area weightage 10%	73.10								
	Sub Total	**804.10**								
	Total						**8.83**	**804.10**	**7102.00**	
2	**Removing and refixing stone slabs of drains and pointing in CM (1:3) (Data Rate)**									
	BS slab of Drain	**Sqm**								
	Open Drain (Sides & Bottom)	**Sqm**	Width=Perimeter of Drain in U Shape							
	HMT 1st Block									
	12th main road	Sqm	2	203.90	1.35		550.53			
	11th Mian road	Sqm	2	243.50	1.35		657.45			
						Total	**1207.98**			
	Deduct 30% for Missing/Damaged						362.39			
	Consider 70% Qnty for Removing & Refixing						845.59			
						Sub Total	**845.59**			
	Data rate	**121.00**								
	Total						**845.59**	**121.00**	**102316.00**	
3	**Removing and resetting of footpath slab (Data Rate)**									
	Precast Cover Slab	**Sqm**								
	HMT 1st Block									
	13th main Road	Sqm	1	204.00	1.20		244.80			
						Total	**244.80**			
	Deduct 50% for Missing/Damaged						122.40			
	Consider 50% Qnty for Removing & Refixing						122.40			
						Sub Total	**122.40**			
	Data rate	**235.00**								
	Total						**122.40**	**235.00**	**28764.00**	
4	Earth work excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work. (PWD SR 2021-22 Vol -I Pg No 5 item no 1.4.1)									
	For Drain									
	HMT 1st Block									
	8th A main Road	Cum	2	154.90	1.40	1.05	455.41			

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	Culvert								
	HMT 1st Block								
		Cum	3	6.50	1.40	1.10	30.03		
	HMT 2nd Block	Cum	1	6.10	1.40	0.95	8.11		
	Desilt								
	HMT 1st Block								
	13th main Road	Cum	1	204.00	0.60	0.75	91.80		
	12th main road	Cum	2	203.90	0.45	0.45	82.58		
	11th Mian road	Cum	2	243.50	0.45	0.45	98.62		
	Basic rate	186.00							
	Area weightage 10%	18.60							
	Sub Total	**204.60**							
	Total						**766.55**	**204.60**	**156836.00**
5	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete.(P.No.27,I.No.5.31.1)								
		Sqm							
	Provide 30% for Missing/Damaged	From item no.02					362.39		
	Basic rate	700.00							
	Area weightage 6%	42.00							
	Sub Total	**742.00**							
	Total						**362.39**	**742.00**	**268897.00**
6	Providing and laying in position plain cement concrete Mix 1:3:6 (M10) for levelling course for all works in foundation. Using 40 mm nominal size graded crushed coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (PWD SR 2021-22 Vol -I Pg 15 item no 2.1.3)								
	HMT 1st Block								
	8th A main Road	Cum	2	154.90	1.40	0.15	65.06		
	Culvert								
	HMT 1st Block								
		Cum	3	6.50	1.40	0.15	4.10		
	HMT 2nd Block	Cum	1	6.10	1.40	0.15	1.28		
	Basic rate	5752.00							
	Area weightage 10%	575.20							
	Sub Total	**6327.20**							
	Total						**70.43**	**6327.20**	**445651.00**
7	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. M20 (The cost of steel reinforcement & formwork to be paid separately) (PWD SR 2021-22 Vol -I Pg 17 item no 2.4.2)								
	Bottom Raft								
	HMT 1st Block								
	8th A main Road	Cum	2	154.90	1.20	0.15	55.76		
	Side wall								
	HMT 1st Block								
	8th A main Road	Cum	4	154.90	0.15	0.75	69.71		
						Sub Total	**125.47**		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	Culvert								
	Bottom Raft								
	HMT 1st Block								
		Cum	3	6.50	1.20	0.20	4.68		
	HMT 2nd Block	Cum	1	6.10	1.20	0.20	1.46		
	Side wall								
	HMT 1st Block								
		Cum	6	6.50	0.23	0.75	6.73		
	HMT 2nd Block	Cum	2	6.10	0.23	0.60	1.68		
						Sub Total	**14.56**		
	Basic rate	6256.00							
	Add 5% for Shuttering	312.80							
		6568.80							
	Area weightage 10%	656.88							
	Sub Total	**7225.68**							
	Total						**140.02**	**7225.68**	**1011770.00**
8	Supplying, Fitting and Placing TMT Fe550 bar Reinforcement in sub-structure complete as per Drawing and Technical Specifications. MORTH Specification NO.1600&2200 (PWD SR 2021-22 Vol -III Pg 99 item no 13.1)								
	For Culvert	Cum					125.47		
		kg	Steel assumed 60 Kg/Cum of Concrete				7528.14		
		tonne					**7.53**		
	For Culvert	Cum					14.56		
		kg	Steel assumed 90 Kg/Cum of Concrete				1309.96		
		tonne					**1.31**		
	Basic rate	103329.00							
	Area weightage 10%	10332.90							
	Sub Total	**113661.90**							
	Total						**8.84**	**113661.90**	**1004556.00**
9	Providing Size Stone masonry with hard stone in foundation & plinth with Cement mortar 1:6 (1 cement : 6 coarse sand) (PWD SR 2021-22 Vol -II Pg 9 item no 5.4)								
	13th main Road	Cum	2	204.00	0.45	0.90	165.24		
						Sub Total	165.24		
	Deduct 30% for Missing/Damaged						49.57		
	Basic rate	5422.00							
	Area weightage 10%	542.20							
	Sub Total	**5964.20**							
	Total						**49.57**	**5964.20**	**295658.00**
10	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paidseparately) Mix 1:2:4 (M15) Using 20 mm nominal size graded crushed coarse aggregates (PWD SR 21-22 Vol I Pg no 17 Item No 2.4.1)								
	Bed Conctere For SSm Drain								
	13th main Road	Cum	1	204.00	0.60	0.15	18.36		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	Copping Concrete								
	For SSM Drain								
	13th main Road	Cum	2	204.00	0.45	0.10	18.36		
	Basic rate	6096.00							
	Area weightage 10%	609.60							
	Sub Total	**6705.60**							
	Total						**36.72**	**6705.60**	**246230.00**
11	Providing and Fixing pre cast covering Slab 100mm thick made out of CC , Jelly 20mm Down Size with steel reinforcement including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete as per Engineer incharge. (Data Rate)								
	Provide 50% Slab for Missing/Damaged	From item no.3					122.40		
	HMT 1st Block								
	8th A main Road	Sqm	2	154.90	1.20		371.76		
	Data rate	**2072.00**							
	Total						**494.16**	**2072.00**	**1023900.00**
12	Providing and Fixing pre cast covering Slab 230mm thick made out of CC , Jelly 20mm Down Size with steel reinforcement including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete as per Engineer incharge. (Data Rate)								
	Culvert cover Slab	Sqm							
	HMT 1st Block								
		Sqm	3	6.50	1.20		23.40		
	HMT 2nd Block	Sqm	1	6.10	1.20		7.32		
	Data rate	**5037.00**							
	Total						**30.72**	**5037.00**	**154737.00**
13	Earth work in surface excavation by mechanical means for lowering & leveling the ground for all works other than foundation in all kinds of soils & upto depth not exceeding 300mm as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter including dressing of excavated surfaces, disposing off or levelling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools, usage of machinery & other appurtenances required to complete the work. In all kinds of soils upto 300 mm depth. (PWD SR 21-22 Vol I Pg no 8 Item No 1.12)								
	Road Cut Portion	**Cum**							
	HMT 1st Block								
	13th main Road	Cum	1	4.50	2.30	0.23	2.38		
		Cum	2	6.00	1.50	0.23	4.14		
		Cum	2	12.30	1.60	0.23	9.05		
		Cum	1	8.00	1.90	0.23	3.50		
		Cum	3	7.50	1.20	0.23	6.21		
		Cum	2	204.00	0.60	0.23	56.30		
	Durga Layout 2nd Cross	Cum	1	6.00	1.70	0.23	2.35		
		Cum	1	10.00	1.90	0.23	4.37		
		Cum	1	12.10	1.50	0.23	4.17		
		Cum	2	9.80	2.20	0.23	9.92		
		Cum	1	8.00	1.10	0.23	2.02		
		Cum	3	7.70	1.80	0.23	9.56		
		Cum	2	203.90	0.45	0.23	42.21		
	11th Mian road								
		Cum	1	10.00	1.50	0.23	3.45		
		Cum	2	9.70	3.30	0.23	14.72		
		Cum	1	8.00	1.60	0.23	2.94		
		Cum	2	7.70	3.30	0.23	11.69		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
		Cum	2	243.50	0.60	0.23	67.21		
	Basic rate	65.00							
	Area weightage 10%	6.50							
	Sub Total	**71.50**							
	Total						**256.20**	**71.50**	**18319.00**
14	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density MORTH Specification No. 406 (PWD SR 21-22 Vol III Pg no 24 Item No 4.27 (A)								
	Road Cut Portion	Cum							
	HMT 1st Block								
	13th main Road	Cum	1	4.50	2.30	0.23	2.38		
		Cum	2	6.00	1.50	0.23	4.14		
		Cum	2	12.30	1.60	0.23	9.05		
		Cum	1	8.00	1.90	0.23	3.50		
		Cum	3	7.50	1.20	0.23	6.21		
		Cum	2	204.00	0.60	0.23	56.30		
	Durga Layout 2nd Cross	Cum	1	6.00	1.70	0.23	2.35		
		Cum	1	10.00	1.90	0.23	4.37		
		Cum	1	12.10	1.50	0.23	4.17		
		Cum	2	9.80	2.20	0.23	9.92		
		Cum	1	8.00	1.10	0.23	2.02		
		Cum	3	7.70	1.80	0.23	9.56		
		Cum	2	203.90	0.45	0.23	42.21		
	11th Mian road								
		Cum	1	10.00	1.50	0.23	3.45		
		Cum	2	9.70	3.30	0.23	14.72		
		Cum	1	8.00	1.60	0.23	2.94		
		Cum	2	7.70	3.30	0.23	11.69		
		Cum	2	243.50	0.60	0.23	67.21		
	Basic rate	2394.00							
	Area weightage 10%	239.40							
	Sub Total	**2633.40**							
	Total						**256.20**	**2633.40**	**674676.00**
15	Providing and applying primer coat with SS1 grade Bitumen Emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.90 kg per m2 using mechanical means MORTH Specification No. 502 (PWD SR 21-22 Vol III Pg no 29 Item No 5.1 A (i))								
	Road Cut Portion								
	HMT 1st Block								
	13th main Road	Sqm	1	4.50	2.30		10.35		
		Sqm	2	6.00	1.50		18.00		
		Sqm	2	12.30	1.60		39.36		
		Sqm	1	8.00	1.90		15.20		
		Sqm	3	7.50	1.20		27.00		
		Sqm	2	204.00	0.60		244.80		
	Durga Layout 2nd Cross	Sqm	1	6.00	1.70		10.20		
		Sqm	1	10.00	1.90		19.00		
		Sqm	1	12.10	1.50		18.15		
		Sqm	2	9.80	2.20		43.12		
		Sqm	1	8.00	1.10		8.80		
		Sqm	3	7.70	1.80		41.58		
		Sqm	2	203.90	0.45		183.51		
	11th Mian road								
		Sqm	1	10.00	1.50		15.00		
		Sqm	2	9.70	3.30		64.02		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
		Sqm	1	8.00	1.60		12.80		
		Sqm	2	7.70	3.30		50.82		
		Sqm	2	243.50	0.60		292.20		
	Provide 20% Profile Correction for old Road								
	HMT 1st Block								
	13th main Road	Sqm	0.2	204.00	5.30		216.24		
	Durga Layout 2nd Cross	Sqm	0.2	203.90	5.40		220.21		
	11th Mian road	Sqm	0.2	243.50	5.80		282.46		
	Basic rate	44.00							
	Area weightage 10%	4.40							
	Sub Total	**48.40**							
	Total						**1832.82**	**48.40**	**88709.00**
16	Providing and laying Dense Graded Bituminous Macadam with 40/60 TPH capacity HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 505 complete in all respects (PWD SR 21-22 Vol III Pg no 33 Item No 5.12 (C))								
	HMT 1st Block								
	13th main Road	Cum	1	4.50	2.30	0.05	0.52		
		Cum	2	6.00	1.50	0.05	0.90		
		Cum	2	12.30	1.60	0.05	1.97		
		Cum	1	8.00	1.90	0.05	0.76		
		Cum	3	7.50	1.20	0.05	1.35		
		Cum	2	204.00	0.60	0.05	12.24		
	Durga Layout 2nd Cross	Cum	1	6.00	1.70	0.05	0.51		
		Cum	1	10.00	1.90	0.05	0.95		
		Cum	1	12.10	1.50	0.05	0.91		
		Cum	2	9.80	2.20	0.05	2.16		
		Cum	1	8.00	1.10	0.05	0.44		
		Cum	3	7.70	1.80	0.05	2.08		
		Cum	2	203.90	0.45	0.05	9.18		
	11th Mian road								
		Cum	1	10.00	1.50	0.05	0.75		
		Cum	2	9.70	3.30	0.05	3.20		
		Cum	1	8.00	1.60	0.05	0.64		
		Cum	2	7.70	3.30	0.05	2.54		
		Cum	2	243.50	0.60	0.05	14.61		
	Provide 20% Profile Correction for old Road								
	HMT 1st Block								
	13th main Road	Cum	0.2	204.00	5.30	0.05	10.81		
	Durga Layout 2nd Cross	Cum	0.2	203.90	5.40	0.05	11.01		
	11th Mian road	Cum	0.2	243.50	5.80	0.05	14.12		
	Basic rate	9889.00							
	Area weightage 10%	988.90							
	Sub Total	**10877.90**							
	Total						**91.64**	**10877.90**	**996863.00**
17	Providing and applying tack coat with RS1 Bituminous Emulsion using emulsion pressure distributor at the rate of 0.25 kg/m2 on the prepared bituminous surface cleaned with mechanical broom MORTH Specification No. 503 (PWD SR 21-22 Vol III Pg no 29 Item No 5.4 (ii))								
	HMT 1st Block								
	13th main Road	Sqm	1	204.00	5.30		1081.20		
	Durga Layout 2nd Cross	Sqm	1	203.90	5.40		1101.06		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	11th Mian road	Sqm	1	243.50	5.80		1412.30		
	Basic rate	15.00							
	Area weightage 10%	1.50							
	Sub Total	**16.50**							
	Total						**3594.56**	**16.50**	**59311.00**
18	Providing and laying Bituminous Concrete with 40/60 TPH capacity hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 5.4 percent of mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade,level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects (PWD SR 21-22 Vol III Pg no 36 Item No 5.16C)								
	HMT 1st Block								
	13th main Road	Cum	1	204.00	5.30	0.04	43.25		
	Durga Layout 2nd Cross	Cum	1	203.90	5.40	0.04	44.04		
	11th Mian road	Cum	1	243.50	5.80	0.04	56.49		
	Basic rate	11531.00							
	Area weightage 10%	1153.10							
	Sub Total	**12684.10**							
	Total						**143.78**	**12684.10**	**1823751.00**
19	Road Marking with Hot Applied Thermoplastic Compound with Reflectorising Glass Beads on Bituminous Surface Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 g/ m2 area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35:2015.The finished surface to be level, uniform and free from streaks and holes. MORTH Specification No. 803 (PWD SR 21-22 Vol III Pg no 57 Item No 8.15)								
	HMT 1st Block								
	13th main Road	Sqm	2	204.00	0.10		40.80		
	Durga Layout 2nd Cross	Sqm	2	203.90	0.10		40.78		
	11th Mian road	Sqm	2	243.50	0.10		48.70		
	Basic rate	478.00							
	Area weightage 10%	47.80							
	Sub Total	**525.80**							
	Total						**130.28**	**525.80**	**68502.00**
20	**Loading and Unloading of Stone Boulder**/Stone aggregates/ Sand/Kankar/Moorum. (Tipper 5.5 m3) (PWD SR 2021-22 Vol-III Page No.3, Item No.1.1A)								
	Qty Vide frm Item No-01+04+13	**Cum**					**1031.58**		
	Total						**1031.58**	**129.80**	**133899.00**
	Basic rate	118.00							
	Area Weightage 10%	11.80							
	Total	**129.80**							
21	**Cost of Haulage** Excluding Loading and Unloading Taking output 10 t load and lead 10 km = 100 t.km (PWD SR 2021-22 Vol-III Page No.3, Item No.1.4A)								
	Qty frm Item No-20	**t.Km**		1031.58	1.28		**1320.42**		
	Total						**1320.42**	**105.60**	**139437.00**
	Basic rate	12.00							
	8Km 12*8	96.00							
	Area Weightage 10%	9.60							
	Total	**105.60**							
								Grand Total	**8749884.00**
								GST Charges (12% of estimated cost)	**1049987.00**
								DPR Charges (1% of estimated cost)	**100000.00**
								Project management And Consultancy Charges(1% of estimated cost)	**100000.00**

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
								Miscellenious and rounding	129.00
								Total Amount	10000000.00
								RUPEES ONE CRORE ONLY	

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2018-2019, PWD 2021-2022, Issue rates and Data Rates.

Assistant Engineer
BBMP

Assistant Executive Engineer
BBMP

Assistant Executive Engineer
Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Executive Engineer
BBMP

RUDRAPRASAD CONSULTANTS BANGALORE

(7)

DETAILED ESTIMATE

For the Work of

"Improvements to Road and Drains at BEL layout, 1st, 3rd Block and Surrounding area in ward No.09(Vidyaranyapura)"

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:- CONSULTANCY SERVICE FOR DETAILED PROJECT REPORT, FIELD SURVEY, GENERAL REPORT, BASIC DRAWING, TECHNICAL REPORT, DETAILED DRAWING, DETAILED COST ESTIMATE FOR PACKAGE NO. 06 (PACKAGE CONSISTS OF 14 WORKS)"

7) Improvements to Road and Drains at BEL layout, 1st, 3rd Block and Surrounding area in ward No.09 (Vidyaranyapura)

									Estimation Cost.Rs	**10000000.00**
Sl No	**Description of work**	**Unit**	**Mesurement**				**Qty**	**Rate**	**Amount**	
			No.	**L**	**B**	**D**				
1	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead I By Manual Means B Cement Concrete Grade M-15 & M-20 (PWD SR 2021-22 Vol III Pg no 8 Item No 2.7(i))									
	Culvert									
	BEL Layout 3rd Block									
	6th main Road	Cum	2	5.90	1.50	0.23	4.07			
	5th main Road	Cum	8	5.80	1.50	0.23	16.01			
	BEL Layout 1st Block	Cum	1	5.30	1.50	0.23	1.83			
	Basic rate	731.00								
	Area weightage 10%	73.10								
	Sub Total	**804.10**								
	Total						**21.91**	**804.10**	**17616.00**	
2	Earth work excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work. (PWD SR 2021-22 Vol -I Pg No 5 item no 1.4.1)									
	BEL Layout 3rd Block									
	6th Main road									
	RHS	Cum	1	432.00	1.10	1.05	498.96			
	LHS	Cum	1	174.00	1.10	1.05	200.97			
	5th Main Road	Cum	x2 1	295.00	1.10	0.90	292.05			
	8th cross									
	Culvert									
	BEL Layout 3rd Block									
	6th main Road	Cum	3	5.90	1.40	1.10	27.26			
	5th main Road	Cum	8	5.80	1.40	1.10	71.46			
	BEL Layout 1st Block	Cum	1	5.30	1.40	1.10	8.16			
	Basic rate	186.00								
	Area weightage 10%	18.60								
	Sub Total	**204.60**								
	Total						**1098.86**	**204.60**	**224826.00**	
3	Providing and laying in position plain cement concrete Mix 1:3:6 (M10) for levelling course for all works in foundation. Using 40 mm nominal size graded crushed coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (PWD SR 2021-22 Vol -I Pg 15 item no 2.1.3)									
	BEL Layout 3rd Block									
	6th Main road									
	RHS	Cum	1	432.00	1.10	0.15	71.28			
	LHS	Cum	1	174.00	1.10	0.15	28.71			
	5th Main Road	Cum	1	295.00	1.10	0.15	48.68			
	Culvert									
	BEL Layout 3rd Block									
	6th main Road	Cum	3	5.90	1.40	0.15	3.72			

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	5th main Road	Cum	8	5.80	1.40	0.15	9.74		
	BEL Layout 1st Block	Cum	1	5.30	1.40	0.15	1.11		
	Basic rate	5752.00							
	Area weightage 10%	575.20							
	Sub Total	**6327.20**							
	Total						**163.24**	**6327.20**	**1032846.00**
4	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. M20 (The cost of steel reinforcement & formwork to be paid separately) (PWD SR 2021-22 Vol -I Pg 17 item no 2.4.2)								
	For Drain								
	Bottom Raft								
	BEL Layout 3rd Block								
	6th Main road								
	RHS	Cum	1	432.00	0.90	0.15	58.32		
	LHS	Cum	1	174.00	0.90	0.15	23.49		
	5th Main Road	Cum	1	295.00	0.90	0.15	39.83		
	Side wall								
	BEL Layout 3rd Block								
	6th Main road								
	RHS	Cum	2	432.00	0.15	0.75	97.20		
	LHS	Cum	2	174.00	0.15	0.75	39.15		
	5th Main Road	Cum	2	295.00	0.15	0.60	53.10		
						Sub Total	311.09		
	Culvert								
	Bottom Raft	Cum							
	BEL Layout 3rd Block								
	6th main Road	Cum	3	5.90	1.20	0.20	4.25		
	5th main Road	Cum	8	5.80	1.20	0.20	11.14		
	BEL Layout 1st Block	Cum	1	5.30	1.20	0.20	1.27		
	Side Wall								
	BEL Layout 3rd Block								
	6th main Road	Cum	6	5.90	0.23	0.75	6.11		
	5th main Road	Cum	16	5.80	0.23	0.75	16.01		
	BEL Layout 1st Block	Cum	2	5.30	0.23	0.75	1.83		
						Sub Total	**40.60**		
	Basic rate	6256.00							
	Add 5% for Shuttering	312.80							
		6568.80							
	Area weightage 10%	656.88							
	Sub Total	**7225.68**							
	Total						**351.68**	**7225.68**	**2541157.00**
5	Supplying, Fitting and Placing TMT Fe550 bar Reinforcement in sub-structure complete as per Drawing and Technical Specifications. MORTH Specification NO.1600&2200 (PWD SR 2021-22 Vol -III Pg 99 item no 13.1)								
	For Drain	Cum					311.09		
		kg	Steel assumed 60 Kg/Cum of Concrete				18665.10		
		tonne					**18.67**		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	For Culvert	Cum					40.60		
		kg	Steel assumed 90 Kg/Cum of Concrete				3653.91		
		tonne					**3.65**		
	Basic rate	103329.00							
	Area weightage 10%	10332.90							
	Sub Total	**113661.90**							
	Total						**22.32**	**113661.90**	**2536822.00**
6	Providing and Fixing pre cast covering Slab 100mm thick made out of CC , Jelly 20mm Down Size with steel reinforcement including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete as per Engineer incharge. (Data Rate)								
	BEL Layout 3rd Block	Sqm							
	6th Main road								
	RHS	Sqm	1	432.00	0.90		388.80		
	LHS	Sqm	1	174.00	0.90		156.60		
	5th Main Road	Sqm	1	295.00	0.90		265.50		
	Data rate	**2072.00**							
	Total						**810.90**	**2072.00**	**1680185.00**
7	Providing and Fixing pre cast covering Slab 230mm thick made out of CC , Jelly 20mm Down Size with steel reinforcement including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete as per Engineer incharge. (Data Rate)								
	Culvert cover Slab	Sqm							
	BEL Layout 3rd Block								
	6th main Road	Sqm	3	5.90	1.20		21.24		
	5th main Road	Sqm	8	5.80	1.20		55.68		
	BEL Layout 1st Block	Sqm	1	5.30	1.20		6.36		
	Data rate	**5037.00**							
	Total						**83.28**	**5037.00**	**419482.00**
8	**Loading and Unloading of Stone Boulder**/Stone aggregates/ Sand/Kankar/Moorum. (Tipper 5.5 m3) (PWD SR 2021-22 Vol-III Page No.3, Item No.1.1A)								
	Qty Vide frm Item No- 01+02	**Cum**					**1120.76**		
	Total						**1120.76**	**129.80**	**145476.00**
	Basic rate	118.00							
	Area Weightage 10%	11.80							
	Total	**129.80**							
9	**Cost of Haulage** Excluding Loading and Unloading Taking output 10 t load and lead 10 km = 100 t.km (PWD SR 2021-22 Vol-III Page No.3, Item No.1.4A)								
	Qty frm Item No-08	**t.Km**		1120.76	1.28		**1434.58**		
	Total						**1434.58**	**105.60**	**151492.00**
	Basiç rate	12.00							
	8Km 12*8	96.00							
	Area Weightage 10%	9.60							
	Total	**105.60**							
								Grand Total	**8749902.00**
								GST Charges (12% of estimated cost)	**1049989.00**
								DPR Charges (1% of estimated cost)	**100000.00**
								Project management And Consultancy Charges(1% of estimated cost)	**100000.00**

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
								Miscellenious and rounding	109.00
								Total Amount	10000000.00
								RUPEES ONE CRORE ONLY	

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2018-2019, PWD 2021-2022, Issue rates and Data Rates.

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Assistant Executive Engineer
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Vidyaranyapura Sub Division
B.B.M.P, Bangalore - 97

Executive Engineer
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RUDRAPRASAD CONSULTANTS
BANGALORE

DETAILED ESTIMATE

For the Work of

"Improvements to Road and Drains at BEL Layout 4th, 5th Block and Surrounding area in Ward No.09 (Vidyaranyapura)."

BRUHAT BANGALORE MAHANAGARA PALIKE

NAME OF WORK:- CONSULTANCY SERVICE FOR DETAILED PROJECT REPORT, FIELD SURVEY, GENERAL REPORT, BASIC DRAWING, TECHNICAL REPORT, DETAILED DRAWING, DETAILED COST ESTIMATE FOR PACKAGE NO. 06 (PACKAGE CONSISTS OF 14 WORKS)"

8)Improvements to Road and Drains at BEL Layout 4th, 5th Block and Surrounding area in Ward No.09 (Vidyaranyapura)

								Estimation Cost.Rs	**10000000.00**
Sl No	**Description of work**	**Unit**	**Mesurement**				**Qty**	**Rate**	**Amount**
			No.	**L**	**B**	**D**			
1	Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts and lead I By Manual Means B Cement Concrete Grade M-15 & M-20 (PWD SR 2021-22 Vol III Pg no 8 Item No 2.7(i))								
	BEL 4th Block								
		Cum	1	7.70	1.50	0.23	2.66		
		Cum	1	8.30	1.50	0.23	2.86		
		Cum	1	8.50	1.50	0.23	2.93		
		Cum	4	6.20	1.50	0.23	8.56		
	Basic rate	731.00							
	Area weightage 10%	73.10							
	Sub Total	**804.10**							
	Total						**17.01**	**804.10**	**13677.00**
2	Earth work excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work. (PWD SR 2021-22 Vol -I Pg No 5 item no 1.4.1)								
	New Drain	**Cum**							
	BEL 4th Block								
	7th Cross Road LHS RHS	Cum	2	137.00	1.10	1.05	316.47		
	8th Cross Road	Cum	2	141.00	1.10	1.05	325.71		
	~~Main Road~~								
	BEL 5th Block								
	4th Cross Road	Cum	2	161.60	1.10	1.05	373.30		
	LHS RHS								
	Culvert								
	BEL 5th Block								
	4th Cross Road	Cum	1	5.90	1.40	0.95	7.85		
	3rd Cross Road	Cum	1	6.50	1.40	0.95	8.65		
	2nd Cross Road	Cum	1	5.70	1.40	0.95	7.58		
	1st Cross Road	Cum	1	6.20	1.40	0.95	8.25		
	BEL 4th Block								
		Cum	1	7.70	1.40	0.95	10.24		
		Cum	1	8.30	1.40	0.95	11.04		
		Cum	1	8.50	1.40	0.95	11.31		
		Cum	4	6.20	1.40	0.95	32.98		
	Basic rate	186.00							
	Area weightage 10%	18.60							
	Sub Total	**204.60**							
	Total						**1113.36**	**204.60**	**227795.00**
3	Providing and laying in position plain cement concrete Mix 1:3:6 (M10) for levelling course for all works in foundation. Using 40 mm nominal size graded crushed coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (PWD SR 2021-22 Vol -I Pg 15 item no 2.1.3)								
	For Drain	**Cum**							
	BEL 4th Block								
	7th Cross Road	Cum	2	137.00	1.10	0.15	45.21		
	8th Cross Road	Cum	2	141.00	1.10	0.15	46.53		
	BEL 5th Block								
	4th Cross Road	Cum	2	161.60	1.10	0.15	53.33		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
	Culvert								
	BEL 5th Block								
	4th Cross Road	Cum	1	5.90	1.40	0.15	1.24		
	3rd Cross Road	Cum	1	6.50	1.40	0.15	1.37		
	2nd Cross Road	Cum	1	5.70	1.40	0.15	1.20		
	1st Cross Road	Cum	1	6.20	1.40	0.15	1.30		
	BEL 4th Block								
		Cum	1	7.70	1.40	0.15	1.62		
		Cum	1	8.30	1.40	0.15	1.74		
		Cum	1	8.50	1.40	0.15	1.79		
		Cum	4	6.20	1.40	0.15	5.21		
	Basic rate	5752.00							
	Area weightage 10%	575.20							
	Sub Total	**6327.20**							
	Total						**160.52**	**6327.20**	**1015668.00**
4	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. M20 (The cost of steel reinforcement & formwork to be paid separately) (PWD SR 2021-22 Vol -I Pg 17 item no 2.4.2)								
	Bottom Raft	**Cum**							
	BEL 4th Block								
	7th Cross Road	Cum	2	137.00	0.90	0.15	36.99		
	8th Cross Road	Cum	2	141.00	0.90	0.15	38.07		
	BEL 5th Block								
	4th Cross Road	Cum	2	161.60	0.90	0.15	43.63		
	Side Wall								
	BEL 4th Block								
	7th Cross Road	Cum	4	137.00	0.15	0.75	61.65		
	8th Cross Road	Cum	4	141.00	0.15	0.75	63.45		
	BEL 5th Block								
	4th Cross Road	Cum	4	161.60	0.15	0.75	72.72		
						Sub Total	**316.51**		
	Culvert								
	Bottom Raft								
	BEL 5th Block								
	4th Cross Road	Cum	1	5.90	1.20	0.20	1.42		
	3rd Cross Road	Cum	1	6.50	1.20	0.20	1.56		
	2nd Cross Road	Cum	1	5.70	1.20	0.20	1.37		
	1st Cross Road	Cum	1	6.20	1.20	0.20	1.49		
	BEL 4th Block								
		Cum	1	7.70	1.20	0.20	1.85		
		Cum	1	8.30	1.20	0.20	1.99		
		Cum	1	8.50	1.20	0.20	2.04		
		Cum	4	6.20	1.20	0.20	5.95		
	Side Wall								
	BEL 5th Block								
	4th Cross Road	Cum	2	5.90	0.23	0.60	1.63		
	3rd Cross Road	Cum	2	6.50	0.23	0.60	1.79		
	2nd Cross Road	Cum	2	5.70	0.23	0.60	1.57		
	1st Cross Road	Cum	2	6.20	0.23	0.60	1.71		
	BEL 4th Block								
		Cum	2	7.70	0.23	0.60	2.13		
		Cum	2	8.30	0.23	0.60	2.29		
		Cum	2	8.50	0.23	0.60	2.35		

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
		Cum	8	6.20	0.23	0.60	6.84		
						Sub Total	**37.98**		
	Basic rate	6256.00							
	Add 5% for Shuttering	312.80							
		6568.80							
	Area weightage 10%	656.88							
	Sub Total	**7225.68**							
	Total						**354.49**	**7225.68**	**2561429.00**
5	Supplying, Fitting and Placing TMT Fe550 bar Reinforcement in sub-structure complete as per Drawing and Technical Specifications. MORTH Specification NO.1600&2200 (PWD SR 2021-22 Vol -III Pg 99 item no 13.1)								
	For Drain	Cum					316.51		
		kg	Steel assumed 60Kg/Cum of Concrete				18990.72		
		tonne					**18.99**		
	For Culvert	Cum					37.98		
		kg	Steel assumed 90 Kg/Cum of Concrete				3417.98		
		tonne					**3.42**		
	Basic rate	103329.00							
	Area weightage 10%	10332.90							
	Sub Total	**113661.90**							
	Total						**22.41**	**113661.90**	**2547016.00**
6	Providing and Fixing pre cast covering Slab 100mm thick made out of CC , Jelly 20mm Down Size with steel reinforcement including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete as per Engineer incharge. (Data Rate)								
	BEL 4th Block	Sqm							
	7th Cross Road	Sqm	2	137.00	0.90		246.60		
	8th Cross Road	Sqm	2	141.00	0.90		253.80		
	BEL 5th Block								
	4th Cross Road	Sqm	2	161.60	0.90		290.88		
	Data rate	**2072.00**							
	Total						**791.28**	**2072.00**	**1639533.00**
7	Providing and Fixing pre cast covering Slab 230mm thick made out of CC , Jelly 20mm Down Size with steel reinforcement including form work, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc, complete as per Engineer incharge. (Data Rate)								
	Culvert cover Slab	Sqm							
	BEL 5th Block								
	4th Cross Road	Sqm	1	5.90	1.20		7.08		
	3rd Cross Road	Sqm	1	6.50	1.20		7.80		
	2nd Cross Road	Sqm	1	5.70	1.20		6.84		
	1st Cross Road	Sqm	1	6.20	1.20		7.44		
	BEL 4th Block								
		Sqm	1	7.70	1.20		9.24		
		Sqm	1	8.30	1.20		9.96		
		Sqm	1	8.50	1.20		10.20		
		Sqm	4	6.20	1.20		29.76		
	Data rate	**5037.00**							
	Total						**88.32**	**5037.00**	**444868.00**
8	**Loading and Unloading of Stone Boulder**/Stone aggregates/ Sand/Kankar/Moorum. (Tipper 5.5 m3) (PWD SR 2021-22 Vol-III Page No.3, Item No.1.1A)								
	Qty Vide frm Item No-01+02	**Cum**					**1130.37**		
	Total						**1130.37**	**129.80**	**146723.00**
	Basic rate	118.00							
	Area Weightage 10%	11.80							
	Total	**129.80**							
9	**Cost of Haulage** Excluding Loading and Unloading Taking output 10 t load and lead 10 km = 100 t.km (PWD SR 2021-22 Vol-III Page No.3, Item No.1.4A)								
	Qty frm Item No-8	**t.Km**		1130.37	1.28		**1446.88**		
	Total						**1446.88**	**105.60**	**152791.00**
	Basic rate	12.00							
	8Km 12*8	96.00							
	Area Weightage 10%	9.60							
	Total	**105.60**							

Sl No	Description of work	Unit	Mesurement				Qty	Rate	Amount
			No.	L	B	D			
								Grand Total	**8749500.00**
								GST Charges (12% of estimated cost)	**1049940.00**
								DPR Charges (1% of estimated cost)	**100000.00**
								Project management And Consultancy Charges(1% of estimated cost)	**100000.00**
								Miscellenious and rounding	**560.00**
								Total Amount	**10000000.00**
									RUPEES ONE CRORE ONLY

CERTIFICATE:

1) The work spot has been inspected and found to be necessary
2) The work spot comes under B.B.M.P
3) The provisions made in the estimate are necessary and minimum
4) The estimate is based on C.S.R of 2018-2019, PWD 2021-2022, Issue rates and Data Rates.

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